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ESTHETICS

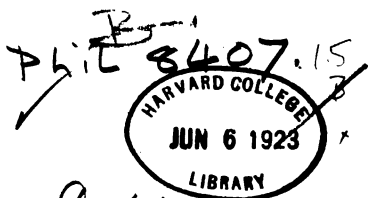
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PREFACE

THIS book is meant for college students, and was written to serve as a text-book for courses in esthetics such as are given in the third or fourth year of the college curriculum. Its first object is to give to students a concise statement of some of the most important facts about esthetic experience and artistic activity. Its second purpose is to stimulate, among students, some interest in the experimental treatment of esthetic problems. The references at the end of the several chapters are offered, not as an attempt at a complete bibliography, but as suggestions for fuller reading.

My obligations are, I hope, apparent in the text, but it is a pleasure to make special acknowledgments to Professor John Dewey for the general standpoint adopted in this book, also to Professor James R. Angell and Professor James H. Tufts, and to my father for help of various kinds.

K. G.

August, 1909.



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ESTHETICS

CHAPTER I

INTRODUCTION

A Definition of Esthetics. If a number of different objects are to be put into the same class, this must be done on the basis of some common quality which every one of them possesses. What, then, can be the common quality by virtue of which one ever classes together things so diverse as a tragedy and a comedy, a gem and a cathedral, a song and a picture? Suppose we say that all these are alike in being beautiful. Then the question is, what is this quality of beauty, if it may or may not be visible, may or may not be audible, may or may not consist in the grace of well-ordered language? Our answer must be that beauty depends upon the taste of the person who observes the work of art as much as upon the work itself, and that the cathedral, the gem, the symphony, etc., are alike in having some peculiar effect upon the feelings of the person who appreciates them. There are, in general, two ways of regarding a work of art: one of these is from the point of view of the amateur who admires but does not practise art, and the other is from the point of view of the artist or producer. It is the business of esthetics to examine both of these kinds of consciousness. Subjectively, esthetics is the science of the feelings which are con-

cerned in the production and appreciation of beautiful things. Objectively, it is the analysis and classification of the beautiful objects which occasion those feelings.

Relationship to Art and Science. Esthetics has for its subject-matter the beauty both of art and of nature, but the more important of the two is the beauty of art. We shall see that the appreciation of nature is derived from the appreciation of human art products, and that nature by itself lacks the element of personal expression, which is important in the esthetic experience. Besides, natural beauty is less susceptible of experimental management than the work of art and hence less fruitful for the observer. Although, therefore, the beauty of nature is not to be excluded from esthetics, the work of art is the principal theme. Esthetics is a science because it pursues the methods of science: the esthetician gathers specimens, observes and compares them, classifies and tries to explain; when possible he examines them under conditions of control. The worker in esthetics has for his specimens emotional experiences, and judgments of "beautiful" and "not beautiful." He observes the person who makes the judgment, observes the object about which it is made, notices attendant circumstances. He compares the judgment of other persons on the same object, and of the same person on other objects; varies one by one the characteristics of the object, takes the subject in a variety of moods, and when he is able to find a constant result of any kind, there he has the rudiments of an esthetic law.

Esthetics and Criticism. Criticism is the act of passing judgment, and it implies the possession of a standard or test of beauty by which one knows or feels that a given work is good or bad. There is common ground, therefore, between criticism and esthetics, since both tell us about art products, whether they are good and why. The difference between the two fields would seem to lie in the greater attention which esthetics gives to the discovery and formulation of the standard. The finding of general laws and building of theories of beauty is the affair of esthetics; whereas the tracing out of these laws in their application to particular works of art is more the province of criticism. Criticism may be called the esthetics of particular cases. Criticism is sometimes itself a work of art: thus in Keats's famous sonnet on Chapman's Homer we find esthetic criticism to be a piece of creative art.

Esthetics and Psychology. Psychology is the science of mental processes as such. Among these processes are affections, feelings, emotions and moods, and certain of these have to do with objects of beauty. The science which deals with these latter processes and the conditions of their arousal may be considered a part of the larger science of psychology. We shall regard the esthetician as a psychologist who limits his attention to one branch of his subject and so finds time to investigate that part more elaborately; and shall treat esthetics as a branch of an advanced psychology.

Is Esthetics a "Normative Science"? A norm is a rule or standard to go by. It is quite common to say that there are two kinds of science, positive and norma-

tive, and that a positive science tells us merely the nature of things, what they are; whereas a normative science tells us also what things ought to be. Not content with the real, the normative doctrine points out the ideal state of things. Thus we hear that psychology is a science which analyzes mental life as it finds it, not caring whether the mental processes are good or bad, rational or irrational, beautiful or ugly. But logic, we are told, distinguishes a false judgment from a true one, and shows the laws of right reason; ethics shows people what their acts should be; and esthetics points out the proper exercise of taste, and tells us what we ought to find beautiful. Now I believe it to be true that logic, ethics and esthetics are in a sense prescriptive, that they do help us in our thinking, our acting and our feeling, and it is certain that they attempt to set up standards or norms; but I cannot see that this is a point in which they differ from other sciences. Every science tries to establish a norm. Psychology is at work determining a "normal" human mind. (Even in abnormal psychology there are recognized types or norms.) A knowledge of chemistry or biology or even mathematics is the knowledge of what one "ought" to do in order to get results in these fields. To stimulate circulation you "should" apply alcohol in the blood; to get the circumference of a circle you "ought" to multiply $2\pi r$. From this it would seem that positive science is also normative. It is just as true that normative science is positive. Ethics cannot tell in each particular case what a person ought to do; it can only heap up instances of action which, in the past, people have thought to be good.

Logic cannot tell just what conclusion you must draw from certain present circumstances, but it can show in what way valid and useful inferences have been drawn from given data in the past. Esthetics cannot tell precisely which brush-strokes will produce the picture that shall transcend all others, but it can classify and record the elements of beauty in works of art already produced. Esthetics, in other words, is just as practical or normative as other sciences, but no more so.

Purpose of Esthetics. To many persons it seems a simple thing to know what they like. They say: "I don't know anything about art, but I know what I like." This is a great mistake. People know very little about their own tastes, and are as often as not disappointed when they get what they thought they wanted. The chief purpose of esthetics is to help us to clarify and to become conscious of our own tastes.

Methods. The methods of esthetics are the methods of psychology, namely, observation, introspection and experiment. Up to recent years observation and introspection have been the ones chiefly relied upon. Observation may be regarded as the objective method; it is applicable both to the work of art itself and to the person enjoying it. Thus we may note the facial expression, the posture and gestures of the one who sees or hears something beautiful. Or, again, just as in psychology one way of arriving at the laws of memory is to observe what things are remembered (the recent, the frequent, the vivid, etc.), so we learn something of the laws of beauty by observing the things that are accepted as beautiful. Under this method comes the study of the

history of art and the evolution of its forms. Introspection is the subjective method. This must tell what it feels like to find a thing beautiful, and also what the mental process of artistic creation is. Experiment is introspection and observation under controlled conditions. Some writers have distinguished experimental methods, as applied to the feelings, into two main classes, which they call methods of "impression" and of "expression." In "impression" the ingenuity of the experimenter is directed upon analyzing and ordering the material to be presented. The result of the experiment is the mental state of the subject, usually reported in the judgment "pleasant" or "unpleasant," and in an introspective account given by the subject. In "expression" the experimenter starts with the mental state of pleasant or unpleasant, using a known and constant stimulus, and directs his attention toward the exact outcome, usually in physiological terms, of this state of mind. Progress in the development of esthetics as a science will mean an ever-widening application of experiment to the problems of esthetics.

Plan of Study. In the study of art one is perpetually discriminating two phases of every art product, namely, feeling and form. The production of a work of art is a progress "from emotion to form"; it is the discovery and arrangement of images which shall express and convey feeling. The appreciation of art is a process of appropriating emotion through the medium of the artistic image or form. To produce, one must have feeling and imagination, and, to appreciate, one must have imagination and feeling. The plan of the present book is to

plunge at once into a psychological statement about feeling and imagination, and then to go on with a discussion of the origins and functions of art, and to the consideration of the esthetics of the special fields of art.

CHAPTER II

IMAGINATION

Definition. Imagination is the consciousness of objects or of qualities which have no present sensory stimulus to excite them in the mind. Images depend, however, upon previous sensory stimulation. We could never get an image of any simple quality of which we had never had a sensation, but, the sensation once experienced, we are able afterward to think it without a stimulus present to sense. So far as elementary qualities are concerned imagination is merely a reproductive function; it never invents. But so far as objects or complexes of sensations are concerned, imagination may be reproductive or productive. It is reproductive when the image is a faithful copy of an old experience; it is productive or creative when the image is a rearrangement of the old material in new forms. The term "image" means, outside of psychology, a visible likeness — as a statue or a photograph is said to be the image of a person — but in psychology the mental image is not confined to visual likenesses; it stands for as many kinds of likeness as there are kinds of sensation. Hence we have auditory images, touch images, taste images, etc. Images differ widely, not only in sensory quality, but in clearness, accuracy, and amenability to control.

Visual Imagination. The power of visualizing or producing mental pictures varies immensely in different individuals, and often in the same person at different times. Occasionally an image is so complete and vivid as to rival a sense-perception, and in this event one has an hallucination. Normally, however, images are less perfect, and are easily distinguished from sense experience. First class visualizers call up past scenes or imagine new ones, with great distinctness. The form and the details of objects, their illumination and coloring, are very precisely rendered, and it is possible for such persons, if they have skill in drawing, to sketch from the memory-image a fairly good likeness of the thing which the image represents. Persons with moderate powers of visualizing find that a scene is fairly well presented, but that one or two elements are clearer than the rest, the others improving as attention is paid to them. Finally, some persons have very dim and inadequate pictures, and some have none at all.

People are said to be of the visual type if they employ visual images to a greater extent than they do auditory, tactile or other kinds. Having a visual mind does not necessarily mean that one has exceptional eyesight — one's eyes may be less good than the average — but it means attending to what one sees rather than to what one hears, touches, etc., and doing one's thinking by means of the material gained through the eyes. Some persons when they listen to a spoken discourse first have to turn the words into verbal pictures, and then grasp the meaning from the mentally seen words. Others find that certain words, syllables, or tone-relationships

always suggest colors or spatial forms. In general it is said that scientific and philosophic minds are poor in visualizing, but that mechanics, architects, and artists are good at it. Women and children, as a rule, excel men.

In esthetics I think we may speak of one as having a visual temperament if one has a liking for visual imagery, and a tendency to explain other experiences by it or to translate them into it. Ribot gives these quotations as illustrative of a mind which transposes sound images into visual and motor terms: "The *ruffles* of sound that the piper cuts out," and "The flute *goes up* to alto like a frail capital on a column." In Shelley's "Sky-lark" is this interesting figure:

All the earth and air
With thy voice is loud,
As, when night is bare,
From one lonely cloud
The moon rains out her beams, and heaven is overflowed.

Visual imagination may be distinguished into several varieties according to the aspect or the nature of the visual impressions which are remembered. One person may be more attracted by the motion of objects, and another by the static appearance, form, color, illumination. An imagination made up of the appearance of movements would be stored with gestures, glances, attitudes, etc., as well as the motions of natural objects. It would no doubt have something in common with the motor type of which we shall speak later, only in the present case the images have to do solely with the visual

aspect of movement. Such a mind would be apt for the arrangement of dramatic effects.

An imagination concerned with forms, masses, lights and colors, the static aspect of things, is more purely pictorial. It is an interesting point to notice that not all painters have the truly pictorial quality of imagination. Many pictures have a literary, or, rather, a narrative character. They tell a story or suggest a sequence of events, and so depend for their interest upon other things than form and color, upon things which cannot be really represented by brush and paint at all. A picture cannot actually present the passage of time, and we should never demand that it suggest a sequence of events, as in a story. It is enough if a picture gives the effect of color upon color, the relationship of line to line, or shows the merely present appearance of some human form; for these are visual stories of the most delightful kind. Professor Van Dyke¹ has observed that Millet's "Angelus" is not a strictly pictorial conception, for it "leans very heavily on our exterior knowledge of bell-ringing at sunset in France." And he says also: "Whether an idea is pictorial or not may be tested in the first place by questioning if it will exist of itself and without a title." Pale yellow, bright scarlet, and dusky blue, these do not require a title; sweeping lines and delicate shading are sufficient theme for a picture; and, unless a person delights in mass and line and color for themselves, his temperament is not, strictly speaking, a visual one.

Auditory Imagination. Persons of the auditory type do their remembering and thinking in terms of sound.

¹ "Art for Art's Sake." Lecture 1.

Their image of an acquaintance is not the look of his face, but is the sound of his voice. Their idea of a violin is its timbre rather than its form or color. "Audiles," as they read a printed page, seem to hear the words sounding in their ears as if spoken by a voice, and in this way they get the full significance of what they read. Dr. Lay¹ writes: "I find the auditory mental imagery in my case to be almost as important a factor in my mental life as is the visual, being a mental reproduction of the sounds I have heard — musical or otherwise. They are comparable with real sounds, not so much in intensity, but perfectly with timbre, pitch and duration. I can estimate a minute with much greater exactness mentally if I listen to the auditory mental imagery of a piece of music which takes about a minute to perform."

It is believed by some writers that auditory stimuli are more closely associated with the emotions than visual stimuli are. Music is constantly spoken of in esthetic treatises as being more indicative of mood and sentiment; it is said to be more subjective than the visual arts, and is generally held to be the most emotional of all arts. But we have to remember that music is not merely auditory, and that the tonal part of it, i.e., that which is distinctively the affair of the ear, is probably less important than the rhythmic, which is not a distinctively auditory experience. If it could be shown that auditory rhythms are more "moving" than visual rhythms, that would be evidence in favor of the theory; but Miner, who has worked with rhythmical flashes of light, asserts that these visual stimuli are just as stirring an incentive to move-

¹ "Mental Imagery."

ment as sound rhythms are. Concerning the effect of non-musical sounds, we may mention these few facts: Young children are more afraid of strange noises than of strange visual impressions. Also, in a thunder-storm, many grown persons, even, have more real feeling about the sound of the thunder than about the sight of the lightning. One of my correspondents relates this bit of experience, which has a bearing on the point: "I was dissecting a young pig. It was an unaccustomed occupation and somewhat unpleasant, but the distressing element was not so much the sight of the animal, nor even the way it felt to my fingers, as it was the sound of the scissors snipping through the skin. Of course, in a way, it was the idea of the cutting which was disagreeable, but still it was the sound and not the sight or touch which seemed to give the feeling. Whenever I think of the occasion the same feeling seems to come up in connection with my memory of that muffled snipping sound." It has also been pointed out in support of the emotional nature of sound that the cerebral connection is closer between centers of hearing and centers of movement than between centers of vision and centers of movement; and that the reflex centers of hearing are closer than those of vision to the nerves which govern circulatory changes. Notwithstanding these facts I doubt whether one is justified in the unqualified statement that auditory impressions are more emotional than visual impressions. Some allowance should be made for differences in mental type. It seems to me fair to say that, for a person of visual temperament, emotion centers around visual sensations and images, and that, for a person of the auditory type,

emotion is more closely allied with auditory sensations and images.

For the audile mind it is the sonorous quality of experience that is attended to and retained. The expression which such a mind naturally seeks is music, or language addressed to the ear. It is said¹ of Schumann: "From the age of eight, he would amuse himself with sketching what might be called musical portraits, drawing by means of various turns of song and varied rhythms the shades of character, and even the physical peculiarities, of his young comrades. He sometimes succeeded in making such striking resemblances that all would recognize, with no further designation, the figure indicated." The two great varieties of auditory imagination in the realm of art are the musical and the poetical. The following verses from Beattie are a good example of auditory imagination; every line suggests an image of sound:

But who the melodies of morn can tell?
The wild brook babbling down the mountain-side;
The lowing herd; the sheepfold's simple bell;
The pipe of early shepherd dim descried
In the lone valley; echoing far and wide
The clamorous horn along the cliffs above;
The hollow murmur of the ocean tide;
The hum of bees, the linnet's lay of love,
And the full choir that wakes the universal grove.

The cottage curs at early pilgrim bark;
Crowned with her pail the tripping milkmaid sings;
The whistling ploughman stalks afield; and hark!
Down the rough slope the ponderous wagon rings;
Through rustling corn the hare astonished springs;

¹ Quoted by Ribot, "Essay on the Creative Imagination."

Slow tolls the village-clock the drowsy hour;
The partridge bursts away on whirring wings;
Deep mourns the turtle in sequestered bower,
And shrill lark carols clear from her aerial tower.

Motor Imagination. Persons of the motor type do their thinking in terms of images derived from movements. Our experience of movement is made up of sensations from muscles, tendons, joints, and skin, and, since these are pretty constant elements in all perceptions, especially the perceptions of sight and touch, the motor imagination should be richly supplied. A motor or "motile" mind would think of a picture in terms of the movements necessary in drawing it or in imitating its lines. The idea of marching or running would mean, not a picture of the act, nor the sound of the regular tread, but the feel of it in one's own legs. The memory of any act would be the memory of tension, the feeling of the twisting, pushing, and pulling in the parts of the body involved in the act. Helen Keller's imagination is largely motor and tactile; she says that the act of shaking hands gives her the impression of a friend's character, and she remembers the character in those terms (i.e., motor and tactile ones). Professional athletes and dancers probably do a good deal of their thinking in motor images. Bain says,¹ discussing muscular ideas: "Take first the memory of feelings of energetic action, as when reviving the exploits or exertions of yesterday. It is a notorious circumstance that, if there be much excitement attending the recollection of these, we can only with great difficulty prevent ourselves from getting

¹ "The Senses and the Intellect," p. 339, 3rd ed.

up to repeat them. The rush of feeling has gone on the old tracks, and seizes the same muscles. . . . A dog dreaming sets his feet a-going, and sometimes barks." And again: "Thinking (in motor terms) is restrained speaking or acting."

Verbal Imagination. Before going on to the images of the lower senses, it will be in place to speak of verbal images, as they come under the head of the three types just considered. Words are the indispensable symbols which assist most of our consecutive thought, and all of it that is very abstract and complex. A word-image may be either visual, auditory or motor, since language is both seen, heard, spoken and written. The facts of aphasia and of agraphia have brought it out that the "cue" to speech and to written words is visual with some persons, auditory with others, and motor with yet others. It is not uncommon, either, for one to use a mixture of the three. Bain's¹ description of the motor speech-image is often quoted. "When we recall the impression of a word or a sentence, if we do not speak it out, we feel the twitter of the organs just about to come to that point. The articulating parts, — the larynx, the tongue, the lips, —are all sensibly excited; a *suppressed articulation* is in fact the material of our recollection, the intellectual manifestation, the *idea* of speech." A way of testing the presence of a motor word-image is to open the mouth wide and then try to think words like *bubble* and *mumble*. If this performance interferes with thinking the words clearly, then the images are probably motor. Verbal imagination may be divided into different kinds, accord-

¹ Loc. cit.

ing to the literary quality of remembered words and phrases, as dramatic, lyric, philosophic, and also according to differences of individual style.

Images from Other Senses. With some persons the imagery of smell plays a very important part, characteristic odors being associated with many objects and localities which to the ordinary observer have no perceptible odor. This type is uncommon and even perhaps abnormal. There remain to be mentioned the images of warmth, cold, pain, passive touch, of taste and of organic sensations. None of these latter play the important rôle in our thinking which the visual, auditory, and motor images do, but when they are present they contribute very materially to the vividness of our reflections.

Affective Images. Is there such a thing as an image of an affection or emotion? Ribot thinks there is. He maintains that there is an affective as well as a cognitive memory, and hence an affective as well as a cognitive imagination. The dissenting view would be this: we remember or imagine the fact that we were pleased or sorry or afraid, but this is merely a cognitive act, and, if we were actually to reinstate or produce the feeling itself, we should have, not a memory-image, but a fresh new feeling which would be on par with a new percept in the cognitive field.

Which Are the Esthetic Senses? Hegel said that in art the idea must be manifest to sense, and the kinds of sense which he appears to have had in mind are the visual and the auditory. Must we take this to mean that the other senses have no part at all in esthetic experience?

If we name over the various arts and skills which appeal to the different senses, we find that there are: (1) for vision: architecture, sculpture, painting, decorative arts, arts of acting and of dancing; (2) for hearing: music, poetry, oratory; (3) for smell: perfumery; (4) for taste: cookery; (5) for touch and the muscle sense: dancing and gymnastics. Out of this list we see that it is only the arts which appeal to the eye and ear (dancing, only in its visual aspect) that are recognized as esthetic. Allowing, however, that the beautiful or esthetic object must be something which makes a direct appeal to the eye or ear — that it is primarily either visible or audible — we may still insist that the other senses are often involved in furnishing attendant imagery to the esthetic consciousness. As elements of beauty, we often speak of warmth, coolness, softness of a color; sweetness of a tone; smoothness, strength, vigor, elasticity in line. Of course these terms are metaphors, but the qualities which they refer to call up imagery of the cutaneous, gustatory and muscular kinds. Again, our motor apparatus is “taken in” by the rhythms and tempos in music; and the stimulation to movement often makes up the larger part of the enjoyment both of music and the visual arts. Finally, we may argue that esthetic consciousness includes organic sensations when it includes strong emotion. The beautiful object, then, does make a reference to other than the visual and auditory senses; the imagery of these other senses is present as a fringe, a background, or a cloud of associations. Indeed, the more senses there are involved in observing the object, the more the subject is absorbed in the object (one of the criteria of esthetic feeling). If the sensuous

appeal is profound and elaborate, we are all the more captured by the work of art.

Image and Idea. That which an artist has to convey is sometimes referred to as his "idea," to distinguish it from the exact form which he adopts as its vehicle. It would be better perhaps to call it his meaning or "emotional theme". Now, ideas and emotional themes never appear in consciousness without some kind of sensuous accompaniment or label attached to them. This sensuous accompaniment is the image, it is the stuff or filling, the visual, auditory, tactile quality or aspect of consciousness; whereas the idea or theme is that for which the image stands, is its meaning or signification.

Logical Function of the Image. For logical and practical purposes, mental images are merely means to some further end, and the precise look or sound of them is less important than the precise meaning. The same piece of work may be done, or the same logical conclusion reasoned out, by quite different sorts of mental imagery. In a quotation given above, Dr. Lay says that he can estimate a minute if he imagines a piece of music, about a minute in length, being played. Another person might be able to estimate a minute by imagining himself walking a certain distance. In these two cases the same piece of work is performed — estimating an interval. This practical accomplishment can also be expressed in the form of a logical conclusion. Dr. Lay's reasoning would be like this: "This piece of music takes a minute to play. I have now mentally heard it played through. Therefore a minute must now have elapsed." And the other would say: "It takes me one minute to walk

a block. I have now imagined all the steps in that distance. Therefore a minute must now have elapsed." From the point of view of this logical or practical purpose, then, we can say that the imagery is dependent upon personal peculiarity, and that its exact sensuous character is irrelevant. To take another illustration, suppose we ask a picnic party to recall the spot where they ate their lunch on a bygone day. One may say: "It was up on the hill; I remember the sound of the brook up there." Another: "Yes, it was on the hill; I remember the view we got." And a third: "I remember it by the climbing we had to do," etc. Here again a bit of mental work has been done. By means of associations the different members of the group have answered the question, all arriving at the same conclusion, though the associative link or mediating image was different for each one.

Images are not only serviceable in enabling us to reproduce former experiences, but they have an even more important function in enabling us to look out for the future. Thus our hypothetical picnic friends can do other things with their respective images besides finding the answer to our question. The one who recalled the sound of the brook might conclude that this would be an excellent spot for poetic composition; while the one who recalled the burden and heat of climbing might resolve to choose a different place for rambling or lunching. In this way the imagery of their past experience would play a part in altering future action. We must notice, too, that before affecting future action the image itself undergoes some change. In the mind of

one person the imagery of the brook has become allied with the imagery of poetic composition. The person who resolves to give up climbing the hill has some imagery in mind corresponding to that resolve. This might be the motor image of climbing plus some motor image of negation, such as shaking the head or speaking the words, "I won't go there again." Or it might be the image of walking on level ground (which would amount to the negation of climbing). When images begin to shift in this way, they are no longer simply reproductive of past happenings, but are creative, and are indicative of some new line of action to be followed.

Reproductive images, we have just said, are those which re-present old experience; such images are vicarious percepts. But consciousness always has some reference to the future, and we never quite want, or quite get, old experience over again. There are many degrees of change, and all we can say is that reproductive images are those which show the least degree of change.

The Esthetic Significance of the Image. However indifferent the exact content of the image may be for logical and practical purposes, it is always, in the field of art and esthetics, a matter of the utmost importance. This point has been stated to everybody's satisfaction in this famous passage of Pater's from the essay on *The School of Giorgione*:

"It is the mistake of much popular criticism to regard poetry, music, and painting — all the various products of art — as but translations into different languages of one and the same fixed quantity of imaginative thought, supplemented by certain technical qualities of colour, in painting — of sound in music — of rhythmical words, in poetry. In this way, the sensuous element in art,

and with it almost everything in art that is essentially artistic, is made a matter of indifference; and a clear apprehension of the opposite principle — that the sensuous material of each art brings with it a special phase or quality of beauty, untranslatable into the forms of any other, an order of impressions distinct in kind — is the beginning of all true esthetic criticism."

In admitting a difference between the practical and the esthetic function of the image we want to be careful not to admit too much. In a later chapter we shall argue that art is ultimately practical. What we admit here is that logical and practical purposes are not always artistic.

Creative Imagination. When a new thing is examined — whether it be a machine, a melody, a drama or what not — it always turns out to be no more than a new arrangement of old elements. Creation is rearrangement. The novelty is the combination. This process of creation, however, is one of those things that will not dance to our piping; the new combination does not take form at our mere command; we cannot compel invention. New ideas seem rather to come by grace, when they come at all. Poets, painters, machine-inventors, in short, originators of whatever kind, speak of ideas as having "inspired" or "seized" them, thoughts as having "occurred" to them. Thus an artist who had been commissioned to paint the frieze of a certain room, and to whom no directions had been given as to the nature of his composition, said that as soon as he looked at the space he was to fill he saw his whole design in every detail exactly as he afterward executed it. But while invention is always a little in the nature of something which springs

ready done from the region of the subconscious, something in the nature of a lucky accident, yet it is possible voluntarily to increase the chances that this accident will happen. In other words, one may qualify. This may be done by becoming saturated with the ideas and images relevant to the field in which one has aspirations. Mathematical novelties occur to the trained mathematician, musical novelties to the musician, pictorial novelties to the painter. This, as a rule, will be found to hold good, and for the reason that the persons who are conversant with a given field have a better supply of the elements of new inventions in that field.¹

¹ As a description of the mental attitude of a person who perceives a new relationship, or arrives at an hypothesis, the following quotation is given from a chapter on "The Divining Arts of a Perceptive Mind," in Meredith's "Egoist": "De Craye strolled through the garden. He was a gentleman of those actively perceptive wits which, if ever they reflect, do so by hops and jumps: upon some dancing mirror within, we may fancy. He penetrated a plot in a flash; and in a flash he formed one; but in both cases, it was after long-hovering and not over-eager deliberation, by the patient exercise of his quick perceptives. The fact that Crossjay was considered to have Miss Middleton on the brain, threw a series of images of everything relating to Crossjay for the last forty hours into relief before him; and as he did not in the slightest degree speculate on any of them, but merely shifted and surveyed them, the falcon that he was in spirit as well as in his handsome face leisurely allowed his instinct to direct him where to strike. A reflective disposition has this danger in action, that it commonly precipitates conjecture for the purpose of working upon probabilities with the methods and in the tracks to which it is accustomed; and to conjecture rashly is to play into the puzzles of the maze. He who can watch circling above it awhile, quietly viewing, and collecting in his eye, gathers matter that makes the secret thing discourse to the brain by weight and balance; he will get either the right clue or none; more frequently none; but he will escape the entanglement of his own cleverness, he will always be nearer to the enigma than the guesser or the calculator, and he will retain a breadth of vision

Then, again, there are devices for putting oneself in the way of getting suggestions. Turner, the painter, used to give colors to children to play with, and then watch their daubing to catch suggestions from the accidental combinations.

The essentially creative moment in thinking is that in which the mind sees likenesses, when it perceives a similarity or partial identity which did not appear before. The genius is he who "spots" the elusive similarity or the hidden identity between different things which escapes other minds. Despite the most tremendous discrepancy, Galileo caught the likeness between the cathedral lamp and the planet, Newton the likeness of the falling apple to the earth, Watt the identity between what happens in a tea-kettle and what may happen in a locomotive.

In artistic composition, also, this thinking in analogies, and the observation of similars, plays a suggestive, creative part. Literary effect depends upon it very much indeed; all similes, metaphors, allegories, parables and comparisons come under this head. The writer who wishes to enrich and illumine his subject proceeds to liken it unto something. Thus he produces figures of speech, and perhaps new combinations of old material. In many literary figures it is easy to point out these partial identities. For example, in:

The Worldly Hope men set their Hearts upon
Turns Ashes — or it prospers; and anon,
Like Snow upon the Desert's dusty Face
Lighting a little hour or two — is gone.

forfeited by them. He must, however, to have his chance of success, be acutely besides calmly perceptive, a reader of features, audacious at the proper moment."

We have heard of "worldly hope" on the one hand, and of snow and the desert on the other, but to put them together and to emphasize the common element of transitoriness is the creative work of the poet. This discovery of an image (the snow upon the desert) to intensify the idea (worldly hope is transitory) is artistic creation. It seems rather harder to show in a pictorial or a musical invention the part played by the perception of similarity, but this difficulty is only apparent. Fig. 35, page 190, shows a rough sketch from a "Wave of the Sea," by Hokusai. Now, clearly, this is no literal copy of any real wave; there is evidence of invention in it. Perhaps the most characteristic point is the claw-like finish of the spraying edge of the wave, and just in that point is where the artist perceived a partial identity, namely, the likeness of the spray to a myriad of clutching hands or claws. By recording and emphasizing that likeness he has made a pictorial invention. By seeing the actual wave in this manner, and then exaggerating the point, he has found the image which gives vividness and piquancy to the mere idea of a wave. Again, a musician takes his theme and develops it into different movements, and so into the likeness of various things. He may treat it as if it were a march, or as a waltz; he may give it the character of a dirge, or the likeness of a jocund roundelay.

We said above that the genius catches elusive and unheard-of similarities. It follows that when he expresses his thoughts and feelings he does it in rare figures and distinguished images. This is just the thing which makes him an artist. The ideas of a great artist

are not so unique; Shakespeare borrowed right and left and so have all the great creators, but the exact form which they gave to those ideas was the personal and unique thing. Then, too, an idea is twice the idea it was after it has been associated with some powerful and illuminating image. Thus the idea of "self-control," although very estimable in itself, gains not a little being said Henley's way: "I am the captain of my soul." The special and distinctive quest of the artist is the search for persuasive and telling form, rare and delectable imagery.

In producing uncommon imagery the man of genius opens himself up to misunderstanding. He must expect to appear obscure and fantastic to some of his public. Shelley gives this figure in the "Skylark":

Higher still and higher
From the earth thou springest,
Like a cloud of fire; . . .

If we analyze the sensuous content of "skylark" and "cloud of fire," it is hard to see where the likeness comes in, and, if we are untouched by the image, we may reject it as obscure and fantastic. But if we accept it, like it, feel its relevancy and justice, we must admit that there is some subtle bond between the lark and the cloud of fire which we feel but do not understand. There is an emotional congruity between them. It is possible to appreciate sympathetically some things which we do not rationally follow, and the plain mind often feels its way to the enjoyment of works which it could by no means analyze or expound. Meredith's novels are all full of delightful, surprising images, many of which can be

grasped only by an act of faith. One girl looks, he says, as if she had "a romantic tale on her eyelashes." Another is "a dainty rogue in porcelain." Sentimentalism means "fiddling harmonics on the strings of sensualism," etc., etc. He showers out a bewildering wealth of them, never deliberately edifying, but always immensely vivid and interesting.

Imagery May Be Trained. It is possible, with effort and practice, to improve the power of imaging things. This does not mean that we can train the mind to invent, but that we can improve the power of reproductive imagination. If, however, reproduced images become more numerous and accurate, it is probable that this may increase the chances of invention. By regularly trying each day, one can increase the number of details which can be simultaneously visualized, and can intensify the vividness of them. Greater accuracy and vividness can also be developed in other sense departments. Galton says of the visualizing power (and it would apply to all imagery): "I believe that a serious study of the best method of developing and utilizing this faculty . . . is one of the many pressing desiderata in the yet unformed science of education."

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JAMES: "Psychology." Chap. XVIII, vol. II.

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CHAPTER III

FEELING

I. AFFECTION

FEELING must be defined first in its elementary aspect as affection, and then in its complicated phase as emotion. The term "affection" in modern psychological usage means certain fundamental or elementary aspects of consciousness, namely, pleasantness and unpleasantness. (Some writers add other elements to this list, as "indifference," but the more general tendency seems to be to accept this twofold classification.) We can most easily indicate the nature of affection by comparing it briefly with cognition.

Affection and Cognition. All mental processes, according to one view, are divided into two great classes, knowing or the cognitive class, and feeling or the affective class. In the former belong the processes of sensation, perception, imagination, memory, reasoning; in the latter, agreeableness and disagreeableness; feelings, emotions, moods, passions, sentiments. To distinguish these two classes it is common to say that cognition has an objective reference, that it tells one about the objects, events, conditions of an external world; whereas feeling has a subjective reference, and expresses a personal reaction, or records the subject's manner of receiving a cognitive stimulus. Moreover, cognitive processes can be referred

to some specific sense-organ, while affective processes involve more markedly the organism as a whole.

Attributes of Affection. The attributes of affection are intensity, duration and quality. It does not represent spatial extent. In this it is unlike visual, tactile and muscular processes, but is like hearing, smell, taste and some organic sensations. Affection may vary, by many stages, from an extremely intense to a very mild experience. As with sensation, it is proper to speak of a threshold of feeling. Sometimes the neural basis of feeling is so slightly excited that no feeling emerges into consciousness and the feeling is then said to be below the limen. Again, the excitement may be so great as to cause fainting, and then the feeling is said to have passed the upper limen. The duration of affection is harder to investigate than the duration of sensation, because, for one thing, the stimuli are harder to control. In working with color, for instance, it is easy to note when a patch of blue is shown and when withdrawn, but the adequate stimulus to a pleasurable feeling for blue is a more complex affair. It is true that the same patch of blue might be the occasion of the feeling, but we cannot count on its remaining so under slightly different circumstances. It is almost impossible to state definitely the instant when a feeling appears and when it disappears. The quality of an affection is the characteristic part of it which cannot be varied without destroying the affection, and which cannot be analyzed.

Relation of Affection to the Duration and Repetition of Sensations. In any concrete moment of living we always find affection and cognition associated. Very often

the judgment of "pleasant" or "unpleasant" is made about or attached to a specific sensory process, the duration of the process influencing the duration, intensity and nature of the affection. Very brief sensory stimuli are likely to be unpleasant, because they are gone before they are clearly apprehended, and this is tantalizing. Very long stimulation, if continuously attended to, is unpleasant; for even when a stimulus is not bad to begin with, it becomes tedious, and sometimes painful. The case is not quite the same when a stimulus instead of being continuous is frequently repeated. If the repetitions come rapidly they may be very disagreeable, as in case of a flickering light; but if they come at long intervals there is a chance that the experience may become more agreeable, as in case of acquired tastes. There is a tendency, however, not to attend to a stimulus which is continuous or often repeated, and when this tendency is operative we say that one has become indifferent or habituated.

Relation of Affection to Intensity of Sensations. In general it may be said that very weak sensory impressions are either indifferent or slightly disagreeable, because they are hard to perceive. Extremely intense sensations are disagreeable and often painful. A moderate intensity of sensation, like a moderate duration, is usually necessary for an agreeable result. Enough has been said to show that sensory and affective processes do not follow the same laws.

The Nature of Pain. Pain, though not itself an affection, is unique among sensations for its close connection with the affective life. Pain is a sensation, a pure and simple quality. It is often described as cutting, burn-

ing, pricking, stabbing, but these terms merely indicate the experiences which accompany it, and there is no way to describe it except to point it out when it occurs. Like any ultimate quality, it must be experienced to be known. Like other sensations, it can be localized with some accuracy. Pain shows a closer kinship with emotion than with the intellectual processes. Like emotion, it is characterized by intensity and impulsive power. Emotion, which means conflict, frequently involves pain. Finally, the physiological accompaniments of pain are like the basis of emotion; for along with strong emotion of any kind there goes a general disturbance of organic processes, alterations in breathing, circulation, glandular secretions, and sometimes faintness, trembling and nausea. Precisely these things are present in the case of hard pain: broken breathing, altered heart-beat, tears, sweat, trembling and nausea. In point of intensity pain seems to hold a unique place among sensations, since in vividness and keen reality it has no equal.

Significance of Pain in Mental Life. Nothing is more certain than the unpleasantness of severe pain, and hence it seldom fails as a stimulus to attention and to mental activity. The characteristics of pain mark it out as the best adapted of any of our mental processes to be a medium of comparison or a measure of values. In the first place it is a simple definite sensation which is common enough in our experience to be readily recognized and appreciated. It is, further, capable of a great range of intensities, and, finally, it is the most reliable of all experiences in prompting a reaction. There is, of course, no mental content which is so constant and fixed in its

relationships as physical standards are, but pain seems to be better than any other mental content that we have. That pain actually is used in a rough way as a measure of value or interest we may infer from the following facts: Among savage tribes it is generally required that the young men pass through painful initiation ceremonies before they are deemed worthy to have full membership in the tribe. The medieval ascetics were regarded as holy in proportion to the austerities which they endured. Again, we find that the degree of attention which we give to any object, or the interestingness of it, can be roughly indicated by the amount of painful stimulus which must be applied in order to draw us away from it. Pain has a function, not only as a stimulus to action and measure of value, but also as a foil to pleasure. The existence of pain gives point and significance to the existence of pleasure, for, in order to discriminate anything, there must be something to discriminate from.

Pain and Unpleasantness. Pain is a sensation and unpleasantness an affective tone. There are many unpleasant things which are not painful, e.g., bad color combinations. On the other hand it is almost universally true that pain is always unpleasant. We said above that nothing was more certain than the unpleasantness of pain, and yet there seem to be occasional exceptions to this. One writer (Hirn) discusses the "enjoyment of pain," and it appears that slight degrees of pain are at least sufficiently interesting to be welcome, under some circumstances, to some people.

Function of Pleasantness and Unpleasantness. It is commonly agreed that there is a general correspondence

between pleasantly toned consciousness and harmoniously working activities on the one hand, and between unpleasantly toned consciousness and clashing activities on the other. Moderate stimulation, as we saw above, is more likely than under- or over-stimulation to give agreeable results. The conscious feelings serve as indices of unimpeded and impeded action respectively. Pleasantness means that something agrees with us, unpleasantness that something disagrees. Beyond this very general and far from satisfactory statement it is hardly safe to go. It has been suggested that disagreeableness means a lowered or narrowed power of action; that if a conflict occurs between activities we must eliminate something. But, on the contrary, it can be urged that conflict is the sign of a broad and inclusive activity; that the person with many interests is the one oftenest in difficulty. It has also been believed that pleasure is stimulative to the mental processes generally, and that we have more ideas when we are happy. But again, on the contrary, there are the cases of mental indolence induced by pleasure.

Significance of Pain and Unpleasantness in Art. The presence of pain, grief or melancholy often gives refinement and dignity and beauty to situations which, without them, might be commonplace or unattractive. Pain and sorrow are in themselves awe-inspiring. Plays like "Oedipus" would be only wretched and revolting as a series of events; but the pain of the protagonist compels attention and makes them tragedies. The story of Marguerite, simple, loving and betrayed, is full of pathetic beauty; but it is doubtful whether Marguerite, merely loving and simple, is capable of the same artistic treatment.

Ruskin says: "No real beauty can be obtained without a touch of sadness. Whenever the beautiful loses its melancholy, it degenerates into prettiness." Guyau has said that the higher esthetic emotion is never clear of a certain sadness. We shall come back to this question of the significance of pain in the discussion of tragedy.

Esthetic Pleasure. Art, on its sensuous or formal side at least, always aims at giving some degree of pleasure. In a later chapter we shall discuss some of the characteristics of pleasure in art, and indeed our whole study of the forms which give rise to this feeling is indirectly a study of the feeling itself.

II. EMOTION

That which distinguishes emotion from affection is the greater complexity of emotion. An emotional state is not merely pleasant or unpleasant, but it includes many muscular and organic sensations which add greatly to the richness of the experience. In order to understand the part played by these varied bodily sensations we must begin our study of emotion with a discussion of its origin in instinctive and reflex acts.

Reflex Action and Instinct. There is no fact about the psycho-physical organism more fundamental than the fact that movement of some kind is always going on. The final purpose of most of these movements is to accomplish the adjustment of the organism to its environment. Certain movements occur very constantly and quite regularly, and these are the nucleus of our existence. They are the movements involved in circulation, respiration and digestion,—the movements by which we

profit by the air and food supplied by the environment. These three powers are manifest at birth and we call them inherited reflexes. Other inherited reflexes, like sneezing and winking, appear later. Another class of movements are those which have been consciously acquired, but performed so often that they, too, have become unconscious. Hereditary and acquired reflexes are not stimulated consciously, though we may become conscious of them after they are performed.

Instinctive actions are like hereditary reflexes in their origin, but they are more complex in nature and they often require some conscious ingenuity to assist in gaining their end. There is an instinctive tendency to run away from large moving objects, and this is an hereditary prompting, but the execution of it may involve some conscious plan of escape. There is an instinct to fight when one is irritated, but the fulfilment may require very complicated movements of striking, wrenching, pulling and pushing. It may not be superfluous to mention here some of the most important instincts: They are: shyness, secretiveness, curiosity, sociability, acquisitiveness, rivalry, jealousy, sexual and parental love, play, imitation, constructiveness.

(The three last-named instincts have a special importance in esthetic theory, and we shall in this parenthesis speak briefly of them. *Play* is defined as the "free pleasurable and spontaneous activity of the voluntary muscles." [Angell.] It is to be regarded as normally a "discharge of surplus energy," and it is free in the sense that in play the child or the adult is doing something which has no immediate utility in providing food or shelter or clothing,

i.e., which is not strictly essential for mere physiological existence. In another sense the play activity is most useful; for the games of children often teach them to take part in the deeds of a social group. Lessons in subordination, leadership and coöperation are gained in this way. Play, then, is usually an index of energy, and is at the same time an investment of that energy in a form which will influence future action. *Imitation* is often a form of play, but it is often present, too, when the play instinct is not operative. It is one of the most inveterate and irresistible of all human tendencies. We constantly find ourselves imitating the speech, manner and expression of the person we have last been talking with, and not only this, but we mimic the inanimate things about us. Who is not impelled to follow the floating clouds, to sway with the swaying tree-tops or to mock the face of a pansy? It will appear later that this imitative impulse is of the greatest moment in the enjoyment of art. *Constructiveness* is an instinct in one sense the direct opposite of imitation. It is the tendency to alter rather than to repeat the things around us. It is the pulling to pieces or the putting together of things which "belong" another way. This is the instinct which is unconsciously at work when new images seem to "occur" to the artist.)

Impulse. An impulse is the consciousness of some tendency to action. Our instincts are felt in consciousness as impulses; and our reflex acts, if something stopped them just as they were going to get performed, would no longer remain purely reflex, but they, too, would appear in consciousness as impulses. Impulses are not a special class of conscious contents, but rather the motor aspect

of any state of mind at all. This is often expressed by saying that every idea or every state of mind has impulsive power. It follows that whenever one has ideas to deal with one also has an activity to deal with. One might indeed go so far as to say that every idea is the idea of some activity. This at all events gives some notion of how fundamental and pervasive a factor impulse is in our consciousness.

Darwin's Theory of Emotion. Darwin's view of emotion expresses a theory which was formerly very generally accepted, namely, that physical attitudes are "expressions" of emotion in the sense of being a normal result of given psychical states. Thus, clenching the fist "expresses" anger because it is the usual outcome of feeling angry. Darwin enunciated three principles of expression:¹ (1) "The principle of serviceable associated habits." Certain complex actions are of direct or indirect service under certain states of the mind, in order to relieve or gratify certain sensations, desires, etc.; and whenever the same state of mind is induced, however feebly, there is a tendency through the force of habit and association for the same movements to be performed, though they may not then be of the least use." Thus when one rejects with great feeling some unwelcome idea, one is likely to make movements which have been used in the rejection of material things. To close the eyes, to turn away the face and to push with the hand have been the reaction in the past to unpleasant objects, and these survive by association when one reacts to a purely ideal object. The second principle is: (2) "The

¹ "The Expression of the Emotions in Man and Animals."

principle of antithesis. Certain states of the mind lead to certain habitual actions, which are of service, as under our first principle. Now when a directly opposite state of mind is induced, there is a strong and involuntary tendency to the performance of movements of a directly opposite nature, though these are of no use . . . ,” etc. The sketches on page 223 taken from Darwin are used by him to illustrate the case of antithesis. (3) “*The principle of actions due to the constitution of the nervous system, independently from the first of the will, and independently to a certain extent of habit.*” Under this heading are recorded certain physical concomitants of emotion which Darwin realizes are not “results” of conscious states. Such are trembling, change of heart-beat and of glandular secretions. Later theories than Darwin’s emphasize this third principle, and include under instinctive reactions some of the movements which he names under serviceable associated habits.

James’s Theory. The central point of James’s doctrine is that the bodily changes present in emotion “follow directly the perception of the exciting fact and that our feeling of the same changes as they occur *is* the emotion.”¹ Or, as Angell says:² “We may apprehend an object in a cold-blooded and self-controlled way as terrifying and dangerous. . . . But we never *feel afraid* unless we have already made certain of the motor reactions which characterize fear.” The effect of this theory is to emphasize the instinctive as against the volitional character of the physiological changes that go with emotion. It does not state that these physiological

¹ “Psychology,” ch. 25.

² “Psychology,” ch. 18.

processes appear in consciousness as clearly separated cognitive elements before we get an emotion, i.e., we do not think first, "I am trembling, my heart is beating hard, my breathing is irregular, etc.," and then feel fear. But, just as the color-stimulus red acts on retina and nerve centers (though we do not cognize this) before it excites a sensation of red, so stimulations from certain other bodily organs (which we do not severally analyze) excite the *feeling* of fear.

Dewey's Theory. Dewey holds that an emotion is essentially the consciousness of conflicting impulses. He agrees with James that it does not exist prior to certain bodily changes, such as irregular breathing, trembling, etc., and agrees with Darwin (as indeed James does) that these bodily changes and attitudes are often the result of inherited reactions formerly (racially) useful. He adds, however, that the instinctive tendency to assume such attitudes must receive some kind of check before an emotion is felt.¹ This theory is the one adopted in this book, and the succeeding paragraphs will give some illustrations of the principle.

Emotion the Consciousness of Conflicting Impulses or of Interrupted Activity. If in every activity we were perfectly successful, we should lead a life of pure habit, untroubled by any problems, or by the need of learning or devising new reactions. Everything would be as easy as breathing and as unconscious. Only when we are checked in our activities and hindered from our objects do we begin thinking or feeling very much about them. Let us look at the case of fighting activity. Sup-

¹ See "The Theory of Emotion," *Psy. Rev.* I and II.

pose one boy strikes another and the other promptly and thoroughly knocks him down. The victor would not normally feel anger; for he has followed a purely instinctive prompting to its natural end, and this without any interruption. If, on the contrary, his pugnacious instinct had been checked, whether by his sense of decorum or by the size of his assailant, the youth would have experienced the emotion of anger. The force which would normally go out in action would, in the latter case, be caged up in himself, and so create a disturbance. As another illustration, take the case when we are waiting to speak to some busy person. We have a question to ask or news to tell; our impulse has brought us to the place, and nothing remains but to speak. Minute after minute goes by. We have nothing to do, hence no outlet for our impulse, and the result is impatience and irritability, and, finally, perhaps a very rage of exasperation. Here, then, is an emotion generated merely by suspense. But the suspense involves more than the one impulse to speak to this person; for during the period of waiting we are cut off from other activities which would have filled that time. Our exasperation, therefore, represents a conflict of impulses. The energy which would ordinarily be discharged in definite activity now seems to be oozing out all over, and therein consists the irritability and the emotion. In fear, for another example, it is the checking of our first impulse to flight which gives the real sense of terror. In dreams we are not frightened by the pursuing goblins and witches so long as we can run or fly merrily away; but when something drags us back, or a dreadful languor pulls us down, then we get the full experience of fear.

The moment of impotence is the moment of poignant emotion.

The Motor Attitude in Emotion. If impulse is a tendency to action, the final success and realization of an impulse is some complete overt act or some special modification of an act. The impulse may, of course, be wrecked at any point in the course of its acting out, but whenever it is stopped we have at least a part of the motor attitude which is appropriate to the completed deed. When two impulses collide we have a struggle between two motor attitudes, and, since the members of the body cannot be in two different positions at the same time, only those elements of the two attitudes which are common or compatible can be maintained. The attitude is often like that assumed in certain typical primitive reactions. In the emotion of anger one could have a variety of special impulses,—impulses to say brutal things, or to do things which might be indirectly cruel; but back of them all, and part of them all, would be remnants of the old primitive reaction of tooth and nail. For in anger of whatever kind, from the murderous rage of Ivan the Terrible to the most sanctified variety of righteous indignation, there is a common intent of resistance, opposition and destruction, and the execution of it begins with the clenching of the hands, squaring of jaws and a certain rising, pushing movement in chest and throat. It may be said that these are but useless survivals of the primitive act; but we may answer that if it is of any use to have emotions at all, then these reactions are strictly useful even to civilized man, for they are the basis of the emotion, and it is doubtful whether without

them one could maintain a resistance even to purely ideal objects. Take also the emotion of embarrassment. It may seem as if the only part of our reaction which counts is the mental resolve to avoid similar situations. But the immediate attitude—the attempt to shrink from view and to hide the face—expresses what is really the common intent of all forms of embarrassment, and if it were not for the emotional tone it is doubtful whether we would ever make the mental resolve.

The Content of Emotion Is Relatively Simple. Strong emotional seizure is proverbially a blinding experience, and passion is usually represented as a state of relative indiscrimination. The object of our impulses is present in the mind in only a highly generalized and impracticable form. There is no well-considered plan of action; it is, indeed, the very failure and want of feasible plans or images which condition the emotion, and, as soon as a concrete, detailed plan is formed which represents each of the opposing impulses, the moment of intensest feeling is over. One proof of the blindness of feeling lies in the semipathological cases where a feeling once aroused and persistently thwarted will eventually satisfy itself in any one of the most diverse ways. The maddened man, like the maddened animal, will wreak his wrath on the first thing possible. From retaliation of some particular kind, his object may become mere destruction in general. Other evidence of the simplicity of the emotional experience is the fact that different persons have but little individuality in their feelings. Emotional sympathy is more quickly and easily spread than is intellectual accord. Everybody, including animals, can understand

when one is afraid or sad or affectionate, but relatively few can understand the ideas of another person. Emotion seems to unite one with the race, and intellect to distinguish one from it. Great men are distinct by reason of their ideas, not by virtue of having emotions.

We said above that emotion is blind; but along with its blindness to concrete details there goes clear vision on some one point, that is, the common element of the conflicting impulses is abstracted and realized with intensity. For example, a person may chafe in a relationship which he cannot immediately break from. The checked impulses to escape take the general form of a determination to escape somehow at some time. The content of the emotion is the presence of some symbol of this general intent. The feeling of the bodily attitude may serve as such a symbol.

The Function of Emotion. Feeling and emotion are representative. In the emotions of conscience and of taste we have a consolidated residuum of our past training in morals and in art appreciation, — a symbol or sign of past experience. In the face of any given situation it is impossible for all our past experience in that line to be present in the mind in the shape of intellectual judgments; but all of it is in some degree represented by our emotional response, for all our past experience has helped to build up that emotion.

Emotion constitutes a unity and practical continuity in our experience. It unifies our activities by bringing them under generic heads. When an explanation comes back to love, sympathy, jealousy, fear, hate, we accept it as final; these emotions we seem to regard as generic and

as ultimate "reasons" or "grounds" for doing things. We never understand the actions of another person until we know the emotion back of his acts. Balzac, in his study of Catharine de Medici, has unraveled the apparent contradictions in her life and made of it a logical, intelligible, consecutive history, and he has done it, as he says, by taking her sovereign passion — the love of power — and using it as a clue and key to all her actions. He explains her by this passion.

Wherever there is emotion there is the condition and stimulus to some new action; for out of the struggle of opposing forces there must come some compromise which is a resultant of the two and hence different from either. Moments of transcendent emotion are moments when a whole personality is excited and the interests of a whole lifetime are welded into new form, — as in a religious ecstasy which results in a lifelong change. Emotion means crisis, and crisis means change.

Emotion, then, represents past experience; it unifies, and it stimulates to something new.

Voluntary Emotion and Emotion Aroused by Art. Is it possible to stir up emotion at will in ourselves, or must we wait until two impulses naturally interfere? James says that by assuming the attitude appropriate to a given emotion we are taking an important step toward creating the actual emotion. The more faithfully we imitate the physical changes, the more fully and genuinely do we feel. What we actually do in stirring up a feeling is to appeal to the impulses which ordinarily go to make it up, and we can arouse the emotion only on condition that we know enough about ourselves to realize what

the effective stimuli are for these component impulses. The artist, therefore, if he wishes to arouse emotion by his work must contrive to stimulate impulses in the observer which are not wholly in accord with one another. Probably the most powerful instrument in the transmission of an emotion is the instinct of imitation. If the spectator of, e.g., a statue, or of an actor, is led to imitate and assume the attitude, he has already taken the first step toward producing in himself the emotion in question.

CHAPTER IV

ORIGINS AND FUNCTIONS OF ART

IN this chapter we must take account of the chief needs, individual and social, which have been, and still are, operative in calling out artistic activities. As far back as there is any record of human culture there is evidence also of artistic employment; hence we must believe that the motives and the occasions for art-production are not merely the offshoot of a highly civilized state, but are fundamental in human nature, and appear wherever man tries to live and cope with his surroundings. Something will be said, in connection with each special art, about the primitive forms of that art, and for the present the occasions, motives and effects will be considered rather than the specific forms.

Primitive Activities and Occasions for Art. Savages have no businesslike habits of work. It is true that they can work in the sense of putting forth power, and this even to the point of complete exhaustion; but if they do it there has to be a plain reason why. That is, there must be a strong and very present stimulus at hand to make them sustain their effort. Bücher says that regularity, and not exertion, is their bugbear. Now, the most important of the natural stimuli which continually recur are the want of food, the fear of enemies and the desire to plunder them, the desire to attract the opposite sex, the fear of natural forces such as wind and lightning,

and the desire to control these forces. Such natural stimuli, such wants and instincts, are answered by the activities of hunting, fishing (and, at a much later stage, agriculture), by warring, by religious and magic rites, by personal adornment, and by the display of personal strength and craft. These, then, are the principal doings of savages, and it is in connection with these interests that their different art-forms have arisen.

If it happened that men always responded to these natural emergencies in a manner perfectly satisfactory to themselves, very likely they would never realize the purpose or meaning of their own performances. Stimulus and response would occur without conscious intervention. But the fact is that the response is often inadequate. We find that, in order to meet our needs in a really satisfactory and effective way, we must anticipate what the stimuli are going to be and train ourselves to a regular rather than a spasmodic reaction to them. Foreseeing a stimulus and ordering the reaction to it is equivalent to setting up an ideal and trying to fulfil it. Instead of awaiting the natural pressure of hunger and then following out the first impulsive attempt to get food, the forethoughtful person, or idealist, strives, by anticipating the pressure, to better the response. Within any group some individuals will be found to respond more aptly to an occasion than others. Now, as soon as one man begins looking at another to see how he does things, that other man becomes a leader and an artist. The man to whom the group looks for an example becomes thereby an embodiment of their ideal; he is recognized as the one who "can," who has the art of doing things.

The primitive artist was the one who, by a personal example, inspired and regulated the activity of a group.

War. In time of war it is the custom of primitive tribes to execute war-dances. Before engaging in a conflict the whole tribe will gather, to go through elaborate steps with great flourish of weapons and with terrible yells. When it is time for the actual battle they also have a presul, or "fore-dancer," to lead out the fighting line, and this presul performs in pantomime all the motions of the fight. This personal example is a help to the men both emotionally and technically, since it incites the desire to fight and at the same time shows the strokes by which to do it. After the battle, too, the deeds of the tribe and of the chief are celebrated by imitative dances. These exhibitions serve several practical purposes: they commemorate and fix the event, they astonish the women, and they fire the warriors with the desire for future battle.

Accompanying the dancing, and as an additional incitement to valor, come the primitive war-songs. The noise of drums and pipes and the song of the tribe, in which its prowess is boasted, are powerful props to the tribal courage. Savages seem to understand thoroughly that "a noisy man is always in the right," and they sagaciously adopt loud rhythmic noises, music and words as their allies.

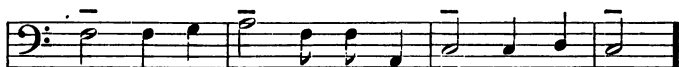
As a still further contribution to the fighting power of the savage, the stimulating effect of pictorial art is employed. Standards and flags are carried which have on them the image of some tribal god or totem animal. The men also make a practice of personal decoration, and the ornamentation of weapons, helmets and shields. The

warrior not only trims himself with lurid war-paint, but he paints on his shield terrific faces with glaring eyes and lolling tongues. Such display tends to encourage himself and to present an overwhelming appearance to the enemy. Some of the designs are probably used also for their supposed magic properties.

Hunting and Other Industry. The deeds of great hunters are remembered in songs and pantomimes. The movements of the hunter in trapping or killing the game, and also the characteristic movements of the animals which he hunts, are reproduced. This imitation of the animals themselves fulfils two purposes: it is an important reminder to the hunter of the nature of the quarry, and it is also supposed to have a magic virtue whereby the thing mimicked is delivered into the power of the hunter. The image of the animal is sometimes carved or scratched on the hunting implement with magic intent.

The connection of art with other branches of work is a very close and important one in undeveloped stages of culture. Wherever there is long, monotonous activity to be sustained, there dancing or singing is developed to accompany it. Grinding grain in hand-mills, spinning and weaving, drawing and carrying water, washing clothes, treading the wine-press, sowing the fields and reaping the harvest,—all such industries are enlivened each with its peculiar kind of art stimulus. In cases where concerted work has to be done, as when many hands join in lifting a burden, pulling a weight or rowing a boat, there is regularly found among lower races the institution of the *presul*. This person performs for the group, as we have seen in the case of fighting, the successive movements

which the members of the group must go through, and he sets the time for them so that all may work in unison. He is the inspirer and regulator of the labor. The following work-song was used by a gang of men in Cairo who were employed in pounding down a road.¹ The leader would sing this melody while he took up his working tool and brought it down with a thud on each of the accented notes. He would then stop and wait while all the others lifted up their implements and sang the same tune in unison, pounding down as he had done on the accented notes.



The Desire to Attract. The desire to attract the opposite sex, and the desire to attract general admiration and to enhance one's own feeling of personal consequence, have led very early in the history of the race to the custom of ornamenting the body by painting, tattooing and scarification, and by the wearing of feathers, shells, strings of teeth, etc. This use of ornament precedes by a long time, Grosse says, the employment of ornament on inanimate things. Not only does such personal decoration excite pleasure by the immediate impression, but it often signifies the possession of unusual strength and skill by the wearer. Thus a decoration of enemies' scalps would signify that the wearer was a brave warrior; the possession of a rare bird's feathers would mean that he was skilful in the hunt; and a fine array of scars would

¹ This example was given to me by Mrs. C. Johnson, who witnessed the scene.

mean that he had the fortitude to endure great pain. Certain other motives may be recognized in this personal decoration; it is said, for example, that some of the tattooed and scarified designs are tribal emblems to indicate a social bond, but the two purposes given above are probably dominant, namely, to present an appearance which shall be intrinsically pleasing, and which shall also prove what a tremendous fellow one is.

Love-dances are common in some tribes. They are calculated to express emotion and to display personal attractions.

Religious and Magic Rites. Religious dances have been observed among some tribes, though they are believed now to have been less common than earlier observers supposed. Their purpose is to propitiate gods or demons and to induce their help or favor. The connection of primitive art with the rites of magic is well attested. The main idea back of primitive magic is this: that a person may control another person or thing by getting control of something which has been closely associated with, or part of, that person or thing, or else by getting control of some image of the object which is to be influenced. That part of the practice of magic which is stimulative to art is the part based upon this second idea, namely, the belief that in acting upon the likeness or image of anything one can act upon the thing itself. This belief is, of course, grossly uncritical, but it is based, nevertheless, on a perfectly valid experience, — the psychical power of the image. Even among Europeans a few centuries ago it was not uncommon to try witchcraft on an enemy by making a wax

image of the person to be injured, and then melting the effigy before the fire or sticking pins into it. (This superstition is commemorated, for instance, in Rossetti's poem, "Sister Helen.") Just so, primitive folk believe that by imitating certain things in dances and dramatic performances they can exert compulsion over the things themselves. They can hasten the coming of summer by enacting a scene in which they make believe drive off winter and usher in spring; they can induce a god to do what they want him to, by impersonating him in the act of doing it. This same principle of magic is exercised by the medicine men. When they are called in to attend the sick they imitate the symptoms of the disease, or they imitate the evil spirit with which the sick person is supposed to be possessed. In this way they expect to control or combat the sickness. It is evident from the facts about the practice of magic that magic is an incentive to the imitative impulse, and encourages the production of likenesses of things.

Primitive Attitude toward Nature. In speaking of the occasions of early art it may seem as if we ought to mention the perception of natural beauty as a direct stimulation to art-production. But the truth is that primitive man seems to have little or none of the "disinterested" admiration of nature which the modern has. The savage must, of course, observe and take account of natural forces, and he is particularly attentive to animal life, but his interest is, for the most part, thoroughly tinged with immediately practical purposes. The following hunter's song illustrates the character of their "love of nature":

The kangaroo ran very fast,
But I ran faster.
The kangaroo was fat,
I ate him.
Kangaroo! Kangaroo!¹

Songs which show appreciation of beautiful landscape are extremely rare. Not only is the savage's interest in natural phenomena limited to their effect upon himself, but all his conceptions of nature are anthropomorphic. He sees everything in his own image. All his values are personal and social. Admiration of natural scenery, simply as natural scenery, is racially, as well as individually, a late development.

Force of Suggestion in Primitive Art. We see that much of primitive art consists in setting an immediate personal example, which stimulates by suggestion some desired activity. The artist, or first performer, in these cases furnishes the model or imagery of action, and the group, following its instinct for imitation, executes a copy. The setting up of such an image, even when people already know what they have to do, contributes to the effectiveness of the movements. It is well known by athletes, and has been shown, too, experimentally, that the first of a regular series of movements is not so strong as the second or third. The first attempt serves to "warm up" the organism; and an important part of the warming-up process is the clearer apprehension of the image of the movement, which is gained by the initial trial. Upon this image the second movement is based and supported. Further, it is almost universally true

¹ Spencer, "Descriptive Sociology," quoted by Grosse in "Beginnings of Art."

that a runner makes better time when he runs with pace. The sight of some one ahead of him making the same motions helps to lift him along. Whatever tends to clarify and vivify the image of an act tends to precipitate the act, and for this purpose the force of immediate and literal example is uncommonly great. There is here no need for reflection, and none of the friction of finding the application or meaning of the stimulus. You do what you see. Complete absorption in the leader, an open, suggestible attitude, is about the only mental process necessary to this primitive type of esthetic appreciation.

Effect of Rhythm. The solicitation of the tendency to imitate is particularly irresistible when the thing to be imitated is rhythmical in character or is repeated at regular intervals until it becomes so. Even a person who could successfully resist first suggestions would almost certainly be led to imitate a movement if he saw it repeated rhythmically for a long time. Rhythm in primitive art has another use, aside from its stimulating effect upon men individually. It serves to time the movements of those who act in concert, and so to make their efforts more effective. The beating of drums conduces to an ordered as well as a lively march; the regulation of the rowers is necessary to any progress of the boat; and men pulling a rope are more forceful when their pull is simultaneous. In much coöperative work a regular rhythm is an absolutely essential device for securing results. More will be said of the nature of rhythm in the next chapter.

General Function of Primitive Art. The general function of primitive art, as indicated above, is to inspire and

regulate the practical activities of savage life. It — art — is a series of devices for heightening power in specified directions. The close connection between the work of art and the occasion which produced it is illustrated by one of Bücher's observations. He says if, in the winter time, one asks a Bulgarian peasant to sing a harvest-song, the answer is sure to be that it would be a pity to sing such a song when it was not the season for it. They do not dissociate the songs from their original setting in a social process. The method of the earliest art is direct personal appeal and example in dance, pantomime and song. Through these arts, and also through the decoration of his body and his property, the personality of the artist impresses itself on his public. Early art furthers social ends and at the same time expresses and preserves to some extent the influence of the artist.

Civilized Activities and Occasions for Art. The great difference between primitive and civilized activity is the division of labor and the specialization of the worker. The primitive community, its employment being homogeneous, had a single ideal for all members. Everybody had to be a warrior and hunter, and consequently strength and cunning were prized as the absolute virtues. Men in early stages of culture are more nearly of the same type. With social development comes a greater variety of occupations; and the devotion of separate groups to different occupations tends to develop different classes and types. In modern theory this movement of specialization may be carried very far. Our ideal world is one in which every human being fills a unique position, is doing something a little different from what

any one else is doing, is, in short, a person and not a mechanical, interchangeable part. The ideal commonwealth is not a society where one person, similar in kind to the others, but greater in degree, leads all the rest; but one in which every person is the leader or head in some kind of activity, one in which all are different in kind, but equal in degree.

Another important difference between savage and civilized man is the ability of the latter to keep up an irksome task. The modern man has the habit of work; he can continue his activity without having an elaborate sensory stimulus always present. This does not mean that civilized people can get on without any kind of stimulus; it means that they can be stimulated by more remote things. The idea of some future good, even many years ahead, is often enough to keep the modern person employed. He can be inspired by words spoken to him many years gone by. He can be spurred on by the example of men who are doing things quite different in kind from his own work. In brief, he can get stimulation out of things at wide range, he can apply things to himself even when they are remote in time or in character from his own occupation.

Modern activities being so greatly varied, modern art has a wider range of occupation to start from. Theoretically, at least, every human life offers occasion and material for art. The modern artist has a larger public and a public with greater diversity of interests. This condition may lead to two different results: either the artist will choose some subject which is common to all human nature in spite of its diversities, or else, trusting

to the public's breadth of interest, he will record his particular personal experience. These two tendencies are not irreconcilable, as we shall see later. With such changed conditions we must look for some change in the mental processes of the civilized artist and his civilized public. What, first, is the modern impulse to art-production?

The Art-Impulse. What is the creative impulse like? How does the artist's attitude resemble and how does it differ from the appreciative attitude? Before we try to find the answer to these two questions let us understand that by the "producer of art" we need not mean the person of great genius or talent, but we may include every one who has seriously tried to do something artistic. This means nearly everybody. Hirn says:¹ "If the notion of art is conceived in its most general sense, every normal man, at some time of his life at least, is an artist — in aspiration, if not in capacity."

An artist might be led by a variety of motives to undertake a work of art—external motives like love, emulation, money, etc. — but apart from these he is also moved by an intrinsic art-impulse, which is not exactly art for art's sake either. Schiller gave a proper recognition to the spontaneous and free nature of the art-impulse by regarding it as the unfolding of the play instinct. This view was taken up later and developed by Spencer. Art, they held, is a grown-up kind of play, and, as such, is a means of taking care of "surplus energy." There are two chief lines of objection to this theory. The first is that neither art nor play can be regarded as mainly a safety-valve or

¹ "The Origins of Art" ch. 2.

drain for surplus energy. These activities are often carried on, in fact, when the player and the artist have no surplus energy. The other sort of objection has to do with the difference in motive and in product between art and play. The play-impulse is satisfied when the actual process of the game is complete. But the art-impulse demands not only the process, but also some specific product, which shall endure after the act of production is complete. This point is well stated by Hirn. Other theories as to the nature of the art-impulse have been maintained: one, that it is a manifestation of the imitative impulse (Aristotle); another, that it is derived from the desire to attract by pleasing (Marshall) or the desire for self-exhibition (Baldwin). There is truth, doubtless, in each of these theories, but possibly better than any is Hirn's description of the art-impulse as a desire for the objectification of emotion.

The art-impulse seems to be a desire to perpetuate one's own emotional experiences, to crystallize some exciting but too fleeting instant. If we have had a striking and significant moment, a strange sorrow or curious joy, we want it to be recorded. Now, the only real way to record a thing is to put it in such shape that it makes an impression both on oneself, and, especially, on others, — makes a lasting or a revivable impression. Pleasing form is the best chance for such immortality. Hirn writes:¹ "The work of art presents itself as the most effective means by which the individual is enabled to convey to wider and wider circles of sympathizers an emotional state similar to that by which he is himself

¹ Op. cit. ch. vi.

dominated." When we communicate our experience we wish to do it in so apt a way that when others hear, or when we come back to it ourselves, our moment lives again, and we are justified in having appreciated it. We want to put it in such a way that it will modify the feelings and actions of others; we want, in fact, to establish our own problems and emotions as the important ones. This is our objectification of emotion.

The artist's consciousness is, in one sense, more comprehensive than the consciousness of the amateur, who merely appreciates the artist's product; for the producer must first have had the appreciative attitude toward his own idea before he embodied it; he must have felt the esthetic thrill toward something in his environment which suggested his idea. In another sense the amateur attitude is more comprehensive; for the mere observer is not subject to that anesthesia which active production occasions, and he has leisure to gather a wider range of impressions, which he may bring to bear on his criticism of the work of art. These two attitudes, of course, interact: the producer who has a wide variety of impressions is so much the better artist, and the amateur who has tried to produce is thereby wonderfully sharpened in his observation of the elements of beauty. Still, while one frame of mind is preëminently receptive, the other is chiefly expressive, the artist desiring to impose his thought on others.

Our next few paragraphs must deal with the observer's point of view as he appreciates a work of art. The esthetic consciousness of the observer is commonly described as disinterested, immediate in its apprehension of value, and objective in its reference.

Esthetic Consciousness Disinterested. One may be interested in an object in a variety of ways. To a hungry man, an apple is essentially something to eat; to the sportive lad, it may be a missile to throw or a ball to catch; to the art student, it may appear a model to be copied. In each of these cases we find a person with an ax to grind; each wishes to use that apple as means to his own ends. Now it may happen that a fourth person will appear who says he is interested in the apple just as an apple, that is, he is not consciously trying to appropriate it to private interests. This individual has one of the signs of the esthetic attitude. Instead of an apple, let us consider a colored print. As a piece of paper it might be used to light a fire with, or to write on, or to stop a crack in a window, but we feel at once in each of these cases that violence is done to our object, that it is being subjected to unfit ends, and made to serve purely as an instrument. The only attitude which we here recognize as proper is the one which seems to regard the picture as an end in itself. The "disinterested" interest is the one which goes the longest way toward subordinating immediate personal ends to the end suggested by the object itself, or at least to some larger and more remote personal end. This feeling, of disinterested friendship as we might call it, toward the work of art has been described as the absorption of the subject in the object. It is sometimes felt as a freeing of the subject from desire or will. By saying that the esthetic consciousness is disinterested, then, we mean that there is some kind of subjection of the self, or some suspension of purely utilitarian or personal interests.

(We may notice here, in passing, the question which is sometimes raised: What connection has esthetic appreciation with the desire for the possession of the beautiful object? Undoubtedly it is true that we often want to own the things which we consider beautiful; but if by possession we mean the merely legal ownership and physical control of a thing, then we can see that this does not bring one any nearer to the object in an intellectual or in an emotional way, nor allow one to understand it better. The artistic person who has seen a picture may be more truly in possession of it than is the "patron of art" to whom it belongs.)

Esthetic Value Is Immediate, not Discursive. By this we are to understand that our liking for beauty is impulsive, and that we have, or need have, no conscious *ground* for our feeling, outside of the object as it presents itself to our senses. This liking differs from a reasoned conclusion in having no premises, but it is like an intuition of truth. It differs from moral approbation, in that we do not think of any law as being fulfilled by it, but it is like a divination of conscience. In other words, esthetic enjoyment is not a mediated or derived value, but is an immediate feeling of value. The sensuous element, we should remember, is always vital in art, and, by appealing to sense, art is appealing to our direct instinctive valuations rather than to our reasoned ones. When we speak of esthetic value as immediate we do not mean that there are no associations or intellectual suggestions in the beautiful object, but we mean that these can never be the exclusive ground or cause of its value.

Esthetic Judgment Objective and Universal. That which is objective must exist in some sense independently of any one subject who observes it. The observer may come and go, but the objective thing remains. The observer's belief in the objective thing depends largely upon what other people seem to believe about it. If one person says he sees an object, but all others who have as good opportunity of seeing it as himself unite in declaring that nothing is really there, this person begins to suspect his own senses. "Realness" in its last analysis is a social matter. Our belief in an objective order reduces to a belief in universal opinion. If there is a property by virtue of which an object seems to many people to exist, it has more realness than it would if only one person credited it. (In this social sense we get back to the medieval conception of "the more universality the more reality.") Applying the principle to objects of beauty, we would say that an object which seems to many people beautiful is beautiful. If a thing has a considerable degree of social backing, one may say that it does exist or that it does have beauty. Exactly how many persons are necessary to give this backing it is impossible to say. Furthermore, it cannot be denied that a majority of persons may be in the wrong and a minority in the right. Nevertheless, the minority is itself a social group, and some social reference is implied whenever we talk of the objective and the universal. To say that esthetic consciousness is objective and universal is to say that in the appreciation of the beautiful we are concurring in what is, or will some day be, a social judgment, and that we are thus directly sharing in the life of the race.

The beautiful object is universal also in the sense that it can be shared simultaneously by a large group of people; whereas many other pleasure-giving things, such as foods, must be reserved for purely individual consumption.

Other Characteristics of Esthetic Consciousness. All consciousness, we said in discussing emotion, has a motor aspect, but moments of esthetic appreciation are among the times when this fact is most apparent. Groos's theory that esthetic appreciation is an "inner imitation" of the beautiful object, and Lipps's theory that it is a "sympathetic feeling," or a living out of the act suggested by the object, — both are founded on the fact that strong motor tendencies are characteristically present in moments of esthetic enjoyment. We shall hear a great deal of this motor aspect in connection with the several arts.

Another characteristic of esthetic consciousness is its high degree of suggestibility. In the presence of some supremely lovely thing one becomes like a child, willing and eager to take any suggestion which the admired object may offer. This is perhaps but another phase of the objectivity and disinterestedness of our feeling. At any rate it means that the source of control over ourselves is temporarily shifted to the outside thing. We are under its sway.

Function of Civilized Art. The immediate effect of art from the producer's point of view is to give at least temporary relief from the emotional experience which was pushing him. When the artist has got himself down in color, or marble, or in words, he has in a manner shifted responsibility from himself to the tangible objective medium. He is then free to forget his emotion; for he

knows that he can come back to it again, if he pleases, by virtue of his work of art. The experience and personality of the modern artist, although he may never come into direct contact with his public, are registered in the art-product itself, and so transmitted to his public.

From the point of view of the admirer or amateur the province of art is to give one new appearances or fresh imagery; to suggest new feelings and even new ideas. The absorption of the observer in the work of art ought in some way to change his life, since it introduces a new element. It does give him vicarious experience. A social coöperation is effected between the artist and his public. The artist has the knack of seeing and feeling things and of fixing them in their emotional stage; whereas some one else may have, better than he, the power of taking things at their emotional stage and carrying out their consequences. For example, the person who can best catch the color of martial enthusiasm and perpetuate it in a battle-song to inspire a troop of soldiers is not usually the person who can best lead that troop through the manœuvres of a victorious campaign. The artist stirs up the necessary feeling, but it takes military science and technique to guide the feeling to a successful issue. This statement that art is the stimulation to new activities also does justice to the recreative function of art. Nothing is a more effectual rest than a change of occupation, and the work of art gives a respite from other activity by occupying the mind with new projects or suggestions.

In primitive art the emotional and technical aspect of leadership had not been separated. The dance, which

inspired courage, also showed the movements of attack and defense; the song, which worked up enthusiasm, also specified the method of the fight, or counted over the weapons which the warrior was to use. Take these two Australian war-songs:¹

1. Spear his forehead,
 Spear his breast,
 Spear his liver,
 Spear his heart,
 Spear his loins,
 Spear his shoulder, etc., etc.
2. Shield of Burru, club and spear,
 Bring the throw-stick of Berar,
 The broad boomerang of Waroll,
 Belt, tassel, apron of Boodan:
 Up! Spring, and take good aim
 With the straight-poised emu-spear.

Compare with these "The Marseillaise," or "Bannockburn:"

Ye sons of freedom, wake to glory!
Hark! Hark! what myriads bid you rise!
Your children, wives, and grandsires hoary,
Behold their tears and hear their cries!
Shall hateful tyrants, mischiefs breeding,
With hireling hosts, a ruffian band,
Affright and desolate the land,
While peace and liberty lie bleeding? etc.

Scots, wha hae wi' Wallace bled,
Scots, wham Bruce has aften led;
Welcome to your gory bed,
Or to victorie, etc.

¹ 1. From Grey, vol. ii, p. 309; 2. Honery, Jour. Anth. Inst., vol. vii, p. 245. Both quoted by Grosse.

The striking difference between the two kinds of song, aside from the greater simplicity of the primitive ones, is the contrast of the objective and technical character of the primitive songs with the more subjective and emotional nature of the modern. The particulars enumerated by the savage singer are calculated to fix in mind the details of the actual motions of fighting; whereas the particulars mentioned in the modern songs — as the tears and cries of children — are calculated to rouse feeling and to fix the soldier's resolution. Moreover, such general concepts as "freedom," "glory," "victory," appear only in the modern songs. Modern art, we may say, aims at an emotional and generic type of stimulation, leaving to modern science the business of guiding such stimulation by specific instruction. Art, as Hegel said, is essentially destined to manifest the general. Its function is the quickening of emotional life and its enlargement. This, ultimately, has its effect upon specific practical activities; but the remoteness from its practical issue — the length of the process — is the essential difference between the function of primitive art and the function of civilized art.

The dissociation of the art-product from special occasions goes hand in hand with the generic nature of its influence. We may explain what "generic stimulation" means by the following example. Suppose a statue of victory to stand in a public square. We may conceive that each passer-by is moved at sight of the statue with a thrill of exultant feeling, but that the final result of this feeling is different in each case. A soldier may be reanimated to do better fighting, a musician may be

inspired to write a triumphal chorus, a student to overcome an intellectual problem, a woodchopper to fell more trees, and so on. These acts which it ultimately stimulates are part of the final meaning of the statue; but since these actions vary so much in detail, and since they cannot be exactly foreseen, we may be content with a general expression and say that the statue stimulates to vigorous and victorious work.

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TUFTS: "On the Genesis of the Esthetic Categories."

CHAPTER V

RHYTHM

ANY regularly repeated activity or event is rhythmic in the wide sense of that term. And in this sense it is common to speak of rhythms of nature, and to point out how very many of the phenomena of nature are periodic — the changes of the seasons and of day and night, the flow of water, the growth of plants, etc., etc. But the phenomena which we consciously experience as rhythmic are much more limited in range. We do not feel the periodicity of day and night, or of winter and summer, for they are much too slow; nor could we feel the periodicity of ether vibrations, for they are much too fast. We call these things rhythms, not because we feel them, but because we infer that if our appreciation of time were different we could feel these vibrations and alternations as rhythms. We will turn our attention to those cases where we do, or at least may, really feel rhythm as a present and immediate experience. Before describing the nature of that experience it will be necessary to have in mind certain physiological facts.

Physiological Rhythms. Some of our bodily functions which are periodic are not felt by us to be so: in some cases because the periods are too slow — as in the alternations of sleeping and waking — and in other cases because the function is not felt at all, as in the case of the rhythmic movements of the intestines in digestion.

There are periodic functions which we may definitely feel as rhythmic. Such are the beating of the pulse, the movements of respiration, and such activities as walking, swimming, dancing. Even such voluntary actions as speaking or singing take on rhythmic form. Indeed, all activity when repeated tends to become automatic and regular, and this is, biologically, an economic device for gaining efficiency. When we say, however, that all acts become regular we must not understand that they become fixed in an absolutely inflexible regularity. Our physiological rhythms may be varied in rate, that is, they can be quickened or slackened within certain limits, and irregularities can be occasionally introduced without destroying their automatic character.

Fluctuations of Attention. Not only is there a marked periodicity in physiological processes, but it appears also in the psychical process of attention. Attention continually shifts or fluctuates. If we watch carefully we notice that while trying to attend to some simple sensory impression we have either found some new phase in the object to which we are attending, or we have wandered away mentally, while it is only our sense-organ which is still directed toward the source of stimulation. If we take as the object of attention some liminal stimulus — a barely visible patch of gray or a just audible tone — we find that, though the stimulus remains objectively the same, it seems to be now present, now absent, then present and then absent again. These pulses of attention vary somewhat in duration according to the conditions under which they are observed, but the longest that we can hold to a really single impression is about three seconds.

Subjective Rhythm. If one listens for some time to the ticking of a clock or the beating of a metronome, it becomes next to impossible not to hear the sounds in groups. Bolton made experiments in which his subjects listened to many series of telephone clicks. (Telephone clicks are more exactly alike objectively than are the beats of a metronome.) In such a series of sounds, which are just alike in quality, intensity and duration, the subject perceives after a time (not, as a rule, immediately), a certain regular grouping. In order to produce this feeling of grouping a certain rapidity of succession in the sounds is necessary. The upper and lower limits of this rate are about one-tenth of a second and one second respectively. If sounds come, that is, faster than ten in a second or slower than one in a second (Wundt gives the slow limit as one in four seconds) the immediate consciousness of grouping is lost. As several observers report, the type of grouping depends upon the absolute rate of speed: when the rate is slow the subject hears the sounds usually by twos and threes; then as the speed increases he tends to hear the sounds in fours, sixes and eights. Grouping by two, four and eight comes more easily than by three and six. Grouping by five and seven is unnatural, and, when possible at all, requires effort. Subjective rhythm in general arises involuntarily, and according to some observers it is impossible not to feel it. But the form of the rhythm may often be changed voluntarily and by suggestion. Some writers (Miner and Squire) say that grouping without any accent is an early form of rhythm, but as a usual thing an accent or intensive stress is present. The natural location of the

accent is on the first beat of the measure, thus giving trochaic $\downarrow \cdot$ or dactylic $\downarrow \cdot \cdot$ measure. When two grades of accent are present, as is often the case in three- and four-part measure, the natural form is (after Macdougall) $\downarrow \downarrow \cdot$ for the dactyl $\cdot \downarrow \downarrow$ for the anapest, and $\cdot \downarrow \downarrow$ for the amphibrach. For four-part measure the accent runs either $\downarrow \cdot \cdot \cdot$ or $\cdot \cdot \cdot \downarrow$.

Subjective rhythmizing occurs not merely when a person hears a series of sounds, but also when he sees a series of light-flashes. Miner's experiments call attention to this less well-known fact. In watching a series of objectively similar flashes of light the observer interprets every second, third, fourth, etc., as the bearer of an accent, only, in case of lights, the accent means greater brightness.

Objectively Determined Rhythms. Objective rhythm may be introduced into a series by regularly varying some of the elements either in intensity, quality or duration. When there is an intensive accent on every other sound the series may be heard either as trochaic or iambic, but it is more easily and naturally heard as trochaic. When there is intensive accent on every third sound the series may be heard as dactylic, or anapestic or even as amphibrachic; but it is most easily heard as dactylic, and most hardly as amphibrachic. Intensive or stress accent is characteristic of the Teutonic languages, but along with this stress accent there goes a lengthening of the element on which it falls. In speaking, one tends to dwell a little on the accented syllables, and in listening to a mechanical series of sounds, or watching a series of lights, the tendency is to feel an illusion of duration on

the part of the accented elements. Accent seems to entail longer duration, since the spoken word, if loud, really does last longer, and the loud sound and bright light seem to do so.

The rhythm of a series is altered also by the duration of the sounds themselves or by the length of the pauses which separate them. When every second sound is longer than its alternate the series seems to be more easily heard as iambic rather than trochaic (Bolton), just the reverse of the case with intensive accent. When every third sound is lengthened the measure is heard most readily as anapestic. When there is a difference introduced into the pauses of a series those sounds which stand nearest together in time are grouped together. There is a tendency to accent a syllable which precedes a relatively long pause. Syncopation has this tendency to put accent on the cut-off syllable. The effect of this tendency would be to transfer accent to the last syllable of a foot and so to make iambic or anapestic measure. Accent by duration of syllables is characteristic of Greek and Latin verse.

There are two kinds of qualitative change which may constitute the accent in an auditory series, namely, pitch and clang-tint. Change in quality of sounds is often interpreted as a change in intensity. A tone of high pitch and a tone of brilliant quality are likely to appear relatively intense.

Aside from these purely formal ways of accenting a series there is the possibility of logical or expressive emphasis. Rhythm as we actually find it in poetry and music is often greatly modified by the idea which is

being expressed. Words are not like telephone clicks; they differ in logical importance. Some of them are so "loaded" by their significance that the accent which gives proper meaning to a verse is quite different from that which the formal structure prescribes. The same thing is true in the rhythms of music and of the dance.

Complex Forms of Rhythm. There are only two rhythmic units, namely, the two- and the three-syllabled foot. All other kinds break up into these. Groups of four have a secondary accent which breaks them into twos, whereas groups of six have either three twos or two threes, and so on. Macdougall shows that a group like this, $\left| \begin{array}{c} \bullet \\ \bullet \end{array} \right| \begin{array}{c} \bullet \\ \bullet \end{array} \left| \begin{array}{c} \bullet \\ \bullet \end{array} \right| \begin{array}{c} \bullet \\ \bullet \end{array} \left| \begin{array}{c} \times \\ \times \end{array} \right|$ which looks like an exception, since the four notes are not grouped by twos, is really equivalent to a group of two threes, because, for good effect, a pause is required after the fourth note which makes the measure last for six beats.

Rhythm and Work. When physical work is performed in a rhythmical manner it gains greatly in efficiency. The historical evidence for this is the widespread custom among primitive peoples of having some one to keep time for them as they work. This custom, which we have already heard of, is the response to the felt need for order and regularity in work. Experiment also shows the advantage of rhythmic form in work. Awramoff found it hard to compare rhythmic with unrhythmic work because his subjects tended in so short a time to fall into rhythmic habits. He found, however, that different tempos in his rhythms made a difference in the amount of work performed. In general, the faster the rhythm the greater the quantity which can be accomplished in a

given time. It might be supposed that in an unhurried rhythm one would make the single strokes of work enough stronger to make up for the greater length of time, but this is not the case. The quality of work, on the contrary, is better when the worker is allowed to select his own tempo. Objectively marked rhythm facilitates muscular action because it hastens and reinforces the already present tendency toward automatism.

Mental as well as physical work is facilitated by the presence of rhythm. The "span of attention," or the number of impressions which can be felt together in consciousness, is enlarged if these impressions are rhythmically grouped. Thus, according to Wundt and others, it is possible to hold in mind at the same time, i.e., to apprehend as a unified whole, as many as forty metronome sounds, provided these are felt as groups of five eights or eight fives. Then, too, the work of memorizing is appreciably lightened by the presence of rhythm. Müller and Schumann, M. K. Smith and others report that the material to be memorized is felt to be bound together by the rhythm, and that the rapidity of learning is thereby greatly increased. Rhythm, then, when introduced into an activity already going on augments the effectiveness of the activity.

It is also true that rhythm in an external phenomenon, i.e., a perceived, as distinct from a produced rhythm, tends to start up rhythmical motor responses in the organism of the observer. For example a person listening to a series of metronome sounds will keep time by involuntary movements of head, tongue, foot, hand or what not. This keeping time does not mean that

there is necessarily a separate movement for every sound. One movement may cover several sounds, and it depends largely on the rate of speed of the sounds how many will be included in each muscular beat.

Rhythm a Motor Phenomenon. Recent investigation tends to show that the conscious appreciation of rhythm is a result of muscular activities like those just mentioned. Stetson writes:¹ "Every rhythm is dynamic; it consists of *actual movements*. It is not necessary that joints be involved, but changes in muscular 'conditions' which stand in consciousness as movements are essential to any rhythm, whether 'perceived' or 'produced.'" This would mean that the real group feeling depends upon sensations from our own motor apparatus. We get back here to a conception very like the one which underlies James's theory of emotion. We start with a sensory stimulus — a series of sounds; these start up a series of rhythmic muscular reactions, and it is the feel of these reactions which gives us the real "feel" of grouping in the external series of sounds.

Certain experiments made by Miner show the effect of muscular activity upon our manner of perceiving external things. He showed to his subjects a series of light-flashes, and directed them to beat time to the series. It was noticed that a forcible movement on their part made the flash of light with which it coincided appear to them objectively brighter. Miner explains subjective rhythmization as an illusion of intensity, in which the subject interprets the tension in his own muscles as an

¹ "A Motor Theory of Rhythm and Discrete Succession." *Psy. Rev.*, vol. xii.

objective accent in the series of impressions which are being rhythmized.

Rhythm and Emotion. A rhythmic stimulus which is strongly and persistently presented often has the effect of working people up to a pitch of great excitement. The form of discharge for this excitement, and its emotional meaning, depend in part upon what the content of the stimulus is. If the stimulus is the sound of a war-drum, and if other incitements to combat are present, the resulting emotion is likely to be a fighting one. If the stimulus is a religious hymn or exhortation of a rhythmic nature, then the emotion tends to be a religious one. Pure rhythm by itself may, however, be expressive of some emotional states. Wundt says that rhythm *is* an emotion, but it is probably truer to say that rhythm carries with it a strong excitement, and that it is capable of expressing certain general emotional conditions. Irregularities of rhythm are often indicative of emotional meaning, since they suggest an interruption of activity.

Esthetic Value of Different Tempos. The range of tempos which give esthetic effect is indicated roughly on the register of the ordinary metronome. It lies between forty and upward of two hundred beats to the minute. The musical terms which designate these tempos also suggest their esthetic effect. The reader will remember that these terms are: *Largo*, meaning broadly or largely; *larghetto*, or somewhat broadly; *adagio*, slowly and softly; *andante*, moving or going; *allegretto*, somewhat quickly; *allegro*, cheerfully, merrily, gaily; and *presto*, meaning nimbly or very quickly. The slower time gives one the sense of mass, dignity and solemnity;

the middle tempos are better described as flowing and graceful; their effect is that of ease, poise and control, for they are without the heaviness of slow measure or the haste of fast time. The quick tempos are vivacious and stimulating. When conjoined with strong sounds, movements or words they are intensely stirring; and when associated with lighter material they are sprightly, pretty and a little pert. These impressions may be explained as phenomena of attention and expectation. In slow measure one gets relatively little stimulation within a given time; attention must be voluntarily sustained, and there is a period of conscious holding over from accent to accent, a feeling of being suspended without adequate support. This demand upon the subject's effort is what gives to slow tempo its effect of heaviness and gravity. The funeral march is an example of perhaps the slowest rhythm which can be used for artistic purposes. In the first movement of Chopin's March, although the tempo is fast enough to give the feeling of grouping, yet it gives also the feeling of the silences and tragic suspense between notes. The middle tempos, ranging from 70 to 150 beats approximately, or over the *larghetto*, *adagio* and *andante*, have been called, above, the easy, graceful, controlled tempos. It is probable that the agreeable sense of ease attaches to these rates because they are the natural rates of certain important physiological rhythms. Thus, the heart-beat is within the *larghetto* range, and a good rate for walking, marching and dancing is from 90 to 100. Agreeable rates for running, for some kinds of dancing and for speech would be considerably faster. In Awramoff's




research, where subjects had to lift light weights with their fingers, the tempos chosen by the subjects as most agreeable for such work lay between 70 and 100 beats per minute. Rapid tempos tend to stimulate rapid movements and to suggest the hurry and excitement incident to them. With rapid tempo, attention is involuntarily sustained. A quick series gives more shocks to the minute than a slow one, the notes come pouring in on the ear before they have been anticipated, and it is this quantity of stimulation and the surprise of it which gives the lively exhilaration of *allegro* and *presto*. With tempos much faster than these there comes the painful effort of trying to keep up.

Esthetic Character of Two-Part Measure. Grouping by twos is the simplest form of rhythm, and in verse, at least, it has remained the most popular. There is not only simplicity, but also strength and deliberation in two-part grouping. One reason why this rhythm seems simple and natural is that so many of our ordinary movements fall into it. There are the movements of the legs and the alternate swing of the arms in walking or running. There are the movements which involve two phases—the lifting-dropping, pushing-pulling, extending-flexing movements. These phases, Bücher says, correspond with the *arsis* and *thesis* of the verse-foot. Two-part measure may be called “deliberate” in view of the fact that it naturally goes with a slow tempo. Subjective rhythmizing, it will be remembered, takes place by twos when the objective series is a slow one. For Bolton’s subjects it came when the sounds followed each other at the rate of .795, i.e., about 75 per minute or *larghetto* time.

The possible varieties of two-part measure are, to use the verse-terms, trochaic $\underline{\text{—}} \text{—}$, iambic $\text{—} \underline{\text{—}}$, spondaic $\text{—} \text{—}$ and pyrrhic $\text{—} \text{—}$. The spondee, however, and the pyrrhic foot cannot maintain themselves in a series of any length, because both the reader of them and the hearer tend to put an accent on one of the two syllables and hence to make the foot into a trochee or an iamb. As an individual foot the spondee gives an effect of firmness and solidity; the pyrrhic, of lightness and delicacy.

Trochaic measure is characteristic of early English poetry. In our language, therefore, it is a more primitive form than the iambic. It has been called more “independent” than the iambic, and it seems to give a more straightforward and naïve effect. It is more simple to begin with the important syllable and to let the unimportant follow; more artful to begin with the unimportant and to let the important follow. The iambic by this latter plan works up to a climax and so gains in dramatic effect. Someone says: “The trochee starts forward from impulse, the iambus pauses for reflection.” Iambic measures produce an effect somewhat more rapid than the trochaic, an effect which is explained on the basis of an illusion mentioned above. The pause which follows an accented sound seems shorter than it would because the accented sound appears to last over, and for this reason the feet in an iambic line seem close together and the line faster. Another illusion should be noticed here, since it helps to emphasize the difference in character between trochee and iamb. A loud tone sometimes gives the impression of being higher in pitch than a soft tone of the same vibration rate. There is also a tendency in spoken

rhythms to raise the pitch when the force of a tone increases. These two facts would lead us to associate trochaic measure with falling inflection, since each foot would tend to start high and end low, and to associate iambic measure with rising pitch or inflection, since each foot would tend to start low and end high. Of course, when rhythms are applied in music and in poetry many other factors modify these tendencies, but as a distinction between the abstract forms they hold good.

Three-Part Measure. The attempt has been made to derive three-part from two-part measure. The evolution is supposed to have taken place through such a series as this: 1.  2.  3.  Bücher,¹ on the other hand, derives three-part measure from such work-movements as the smith uses in hammering at his forge. But, whatever its source, the grouping by threes seems to us now sufficiently natural and spontaneous. In three-part measure the tones or syllables usually follow one another more quickly than in two-part measure. The rate at which subjective rhythmizing naturally goes by threes is .460, i.e., about 130 beats per minute or andante tempo. Three-part time does not at all suggest the firmness and solidity of two-part measure, but rather something light, graceful and subtle. It has more gradation. It also gives a better effect of finish and poise. In this foot $\text{—} \text{—} \text{—}$ and in this $\text{—} \text{—} \text{—}$ there is a complete subordination of the light syllable to the strong one, and hence a want of balance between the two parts of the foot. In this $\text{—} \text{—} \text{—}$ on the contrary, or this $\text{—} \text{—} \text{—}$ or this $\text{—} \text{—} \text{—}$ the two light

¹ Op. cit.

syllables form a kind of counterpoise for the strong one.¹

The same points which distinguish trochaic from iambic rhythm hold good of dactylic as against anapestic. The dactyl with its strong beat first is more impulsive, whereas the anapest, like the iamb, approaches a climax. Anapestic verses also seem to gain time as they go. Amphibrachic measure $\cup - \cup$ is hard to keep in form, as it tends to pass into dactylic or anapestic. The remedy for this would be to lengthen the pause between the feet, and the result of this would be to break up the continuity of the verse, to isolate each unit and so to produce a lengthening of the line. The amphimacer $- \cup -$ has its light and strong syllables greatly out of proportion, and it, too, like the amphibrach, would require a slight pause between the feet in order to keep in form.

We cannot omit from a discussion of this kind the famous lines of Coleridge on "Metrical Feet:"

Trochee trips from long to short;
From long to long in solemn sort
Slow Spondee stalks; strong foot! yet ill able
Ever to come up with dactyl trisyllable.

¹ Hurst and McKay insist on a characteristic difference between dactyl and anapest apart from the position of accent. They write (Univ. of Toronto Studies, vol. i): "Meumann says: 'Dactylic lines may be read with anapestic movements and vice versa,' — implying that there is no essential difference between a dactylic and an anapestic line, excepting the fact that the dactylic line happens to begin with an accented syllable. . . . There is a real internal difference in the foot. The anapestic foot begins with two short syllables (the second of which is in every case longer than the first), followed by a long syllable. . . . The anapestic foot is a group in an ascending order of importance, the dactylic in a descending."

Iambics march from short to long; —
 With a leap and a bound the swift Anapests throng;
 One syllable long, with one short at each side,
 Amphibrachys hastes with a stately stride; —
 First and last being long, middle short, Amphimacer
 Strikes his thundering hoofs like a proud, high-bred racer.

Rhythm as an Art-Form. Rhythm, as we have just seen, is capable in some degree of reflecting or objectifying certain phases of emotional experience. Its motor basis gives it common ground with emotional experience. It may seem as if pure rhythm is too simple a phenomenon, too restricted in content, to be called an art-medium; but the compound rhythms — the forms in which the elements are arranged into large and complex wholes — offer the observer material for esthetic enjoyment, and the artist scope for his creative imagination. We shall find the complex forms in the evolution of music, dance and poetry. Rhythm affords stimulation, as an art-work should, and it is, in general, a means to fuller and more efficient activity.

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CHAPTER VI

THE DANCE

Definition. The dance may be broadly defined as a series of rhythmic movements which are to some extent indicative of feeling. This is general enough to include both the dancing of the orient, which sometimes means movement of arms and trunk, but not of legs and feet, and the dancing of western peoples, which sometimes means movement of legs and feet, but no considerable move-

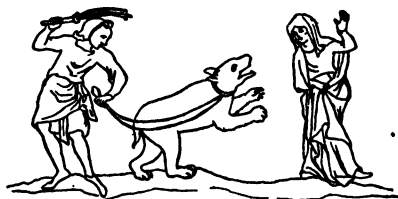


FIG. 1.

ment of arms or trunk. In the dance, as in every art, it is possible to distinguish the formal from the expressive aspect. Dancing expresses certain interests and feelings, but the instrument of this expression is the human form in rhythmic motion; hence the finished form of the dance must exhibit some characteristics of emotional attitudes, but these attitudes must be modified by the demand for ease and pure gracefulness of movement. Some dances will show the tendency to sacrifice form to expression; these are the imitative or realistic dances. Others

will tend to sacrifice expression to form, and these are the ornamental or purely graceful dances, — we might call them the purely decorative ones.

A thoroughly realistic dance is one in which some practical situation is mimicked or reinstated. Some exciting moment of real life is presented, and the motions by which one would respond to the occasion are carried out by the dancer, as in Fig. 1.¹

"This dance," writes Strutt,² "is executed by a female; and probably the perfection of the dance consisted in approaching and receding from the bear with great agility, so as to prevent his seizing upon her, and occasioning any interruption to the performance, which the animal, on the other hand, appears to be exceedingly desirous of effecting, being unmuzzled for the purpose, and irritated by the scourge of the juggler." This dance shows a form not wholly differentiated from primitive drama. The interest of the spectator would lie chiefly in the situation itself and in the supposed emotion of the dancer in eluding the bear. The motions of the dance would have, in this case, a specific meaning derived from the particular situation. If, however, the visible signs or "properties" of the situation — in this case the irritated bear — were eliminated, we should then have more abstract conditions. The interest of the spectator would be centered more upon the agreeable effect of the motions themselves; the ornamental character, or immediate appearance of the dance, would become more apparent.

¹ From Strutt's "Sports and Pastimes." Copied from an early manuscript.

² *Ibid.*

The dance would still represent the action and feeling incident to fear and flight, but it would then have emerged from a dramatic setting into an independent form with an imitative motive.

An illustration of the more purely decorative type of dance is found in the "serpentine," Fig. 2.¹ This dance



FIG. 2.

did not grow out of the representation of any crucial episode or any special emotion; its purpose is to give occasion for graceful rhythmic movements by the dancer, and for the changing curves of the drapery. It may be regarded as an almost purely decorative performance.

As a rule these two types of dance are more distinct in theory than in practice. In many dances both mimetic and ornamental movements are made, and in any perfect artistic form the decorative and the expressive interests should be thoroughly harmonized.

Psychological Explanation of the Origin of the Dance. According to the theory which regards emotion as the

¹ From Reznicek's "Der Tanz."

result of conflicting impulses, the existence of any emotion implies energy which has been diverted from an ordinary pathway of escape, and which must therefore find some new avenue of discharge. To take a particular case, let us imagine a properly stimulated person to have started forward in an attitude of attack. If the enemy offers but a weak resistance, the act of retaliation is shortly completed and does not rise far into the ideational or emotional level. But if the enemy looms up as a terrific force, our person's instinct of fear is roused and tends to check his advance. The fighting instinct held up in this way becomes a conscious emotion of anger, and what would have been an overt act remains merely an attitude. The result is an angry man in a fighting posture. Now the person who wants to do a thing, and dares not, finds a comfort in going repeatedly as far as he does dare. Repeated postures, threats and lunges thus tend to take the place of the real fight. The attitude becomes in itself an end, and the repetition of this attitude, should it become rhythmical, constitutes a dance. By exercising himself in the postures and movements of a fight a man tends to fix his resolution and to augment his strength for future combats. This account applies to the origin of such dances as have a specific emotional motive.

The purely "gymnastic" element of dancing, as Grosse calls it, has a general explanation in the fact that rhythmic movement is instinctive. Movement, merely as movement, is normally pleasant, and, when vigorous rhythmic repetition is added, the instinctive liking for the performance is very great. The absorption of the performer in rhythmic activity is so complete that at times a dancer

will keep himself going to the point of utter exhaustion, and often to the manifest injury of the organism. Rhythmic movement is also sufficiently absorbing to act as an anesthetic for disagreeable states of mind.

The Dance in Primitive Culture. Grosse,¹ who classifies primitive dances as gymnastic and mimetic, gives this description of the Australian corroborry as an example of gymnastic dancing.

"It is astonishing how accurately the time is kept; the tunes and the movements are all in unison. The dancers move as smoothly as the best-trained ballet troupe. They assume all possible positions, sometimes springing aside, sometimes advancing, sometimes retiring one or two steps; they stretch and bend themselves, swing their arms and stamp with their feet. Nor is the director idle. While he is beating the time with his sticks, he continually executes a peculiar nasal song, louder or more softly by turn, as he makes a step forward or backward. He does not stand in the same place for an instant; now he turns toward the dancers, now toward the women (they accompany this dance with their music), who then lift up their voices with all their might. The dancers gradually become more excited; the time-sticks are struck faster; motions become more rapid and vigorous; the dancers shake themselves, spring into the air to an incredible height, and finally utter a shrill cry, as if from one mouth. An instant later, and they have all vanished into the bushes as suddenly as they came out of them." This performance is repeated several times with slight variations, but with ever-increasing excitement.

¹ "The Beginnings of Art," ch. 8.

The mimetic dances of primitive peoples show a great variety of forms. The men of hunting tribes imitate the activities of the hunt, and also mimic the animals which they pursue; thus they have the dances of the emu, the dingo, the frog, the kangaroo, etc. Other types of mimetic dances are the war-dances, love-dances, religious and magic rites, which often represent the forces of nature, change of seasons, etc. In some tribes the women are said to have dances which imitate their various occupations,—as diving for shells, digging for roots, nursing children and quarreling with husbands. Among Europeans the peasant industries are often imitated in the folk-dances.

“The primitive dance,” says Grosse, “is the most immediate, most perfect, and most efficient expression of the primitive esthetic feeling.” The compulsion which the sight and sound of dancing exercises over the primitive spectator is fairly hypnotic; its stimulative power is probably greater than that of any other form of art. The social significance of the dance is extremely important to the tribe. Primitive peoples usually dance in masses rather than individually, and this moving to a common rhythm and performing at the same instant movements which are precisely alike cannot but impress upon the participants the sense of the community of the group. Santayana writes:¹ “To tread the measures of a sacred dance, to march with an army, to bear one’s share in any universal act, fills the heart with a voluminous silent emotion. The massive suggestion, the pressure of the ambient will, is out of all proportion to the present

¹ “Reason in Art,” ch. 3.

call for action. Infinite resources and definite premonitions are thus stored up in the soul; and merely to have moved solemnly together is the best possible preparation for living afterward, even if apart, in the consciousness of a general monition and authority."

The Greek Dance. Dancing was generally held in high esteem by ancient peoples, but none admired it more sincerely or practised it more systematically than the Greeks. They represented their gods and goddesses as dancers, and it was not uncommon for the Greeks to see their most distinguished statesmen and philosophers join the public solemn dances. Plato, Sophocles and Alcibiades are among those who are said to have led the chorus of dancers. One of the most important forms practised by the Greeks was the Pyrrhic dance. Parents were obliged by the state to exercise their children in this dance. There were several varieties of Pyrrhic dance, but all were military in character. The young men, fully armed with helmets, shields and spears, went through the evolutions of combat. They danced sometimes singly, sometimes in the mass, and performed an exact imitation of all the movements of attack and defense. Other pantomimic dances represented scenes from the lives of gods and heroes — such themes as the judgment of Paris, the marriage of Dionysus and Ariadne, and the adventures of Theseus in the labyrinth. There were also religious and funeral dances.

The actual attitudes and movements of the Greek dancers, the details of their practice, have been studied out from the figures on monuments and vases. From these sources many of the positions can be known, and

from the positions certain of the movements themselves can be safely inferred.¹ Certain conventionalized gestures, survivals of emotional attitudes, had a traditional place in their ceremonies. The gesture of the worshiper, for instance, consisted of raising up both hands with the palms spread upward as in Fig. 3, and was probably a survival of the attitude appropriate to the expectation of receiving something from above.

The traditional funeral gesture consisted in clutching the head with a downward dragging motion; this was the conventionalized survival of the original practice at funerals of tearing the hair or scratching the face. This attitude is shown in one of Sargent's prophets (Fig. 4).



FIG. 3.



FIG. 4.



FIG. 5.

It appears that much of the technique of the Greek dance coincides pretty closely with that of modern dancing, but that there are, nevertheless, some marked differences. Certain positions were taken by the Greek dancers which would not be allowed in the modern ballet; for example, standing with feet in parallel lines.

¹ For what follows, Emmanuel, "La Danse Grecque," is authority.

as in Fig. 5, or permitting the arms to hang straight at the sides, or to be bent in sharp angles. Again, certain positions were employed more frequently by the Greeks, such as strong contorsions of the body, bending it far forward and then far backward, — a movement common in the bacchanal dances. Perhaps the most important difference is the much wider range of head and arm movements employed by the Greeks. In modern dancing the hand is treated simply as a part of the arm, that is, it merely completes its lines and motions, the fingers remaining almost always in the one conventional grouping (Fig. 11, p. 103). With the Greeks, on the contrary, the hands were nearly always active in an expressive manner. This difference is due probably to the fact that the Greeks never separated the dance from the pantomime, but they expressed through this undifferentiated form all sorts of mimetic motives. With the Greeks, therefore, characterization and expression would occasionally take precedence over pure gracefulness; whereas, with the moderns, most characterization is left to the drama and pantomime, and the dance is reserved more exclusively for expression which is purely graceful.

Modern Forms. In the middle ages dancing had fallen into disrepute; certain church decrees forbade it. But toward the end of the fifteenth century the art began to be seriously revived. It was encouraged in Italy by the Medici as an adjunct to the splendor of their court, and through Catharine de Medici the interest in it spread to France, where modern dancing has received its most systematic culture. In dancing, as in all arts, different nations borrow from one another, and yet each

nation has developed forms of its own, which are felt to be characteristic and expressive of the national temperament. No description of a dance can give a really adequate idea, but we shall name some of the better-known forms, and try to make some estimate as to their esthetic quality.

The March or Procession. The simplest form of rhythmic movement which may be technically classed as a dance is the alternate tread of the march. The walking step is sometimes used as a preliminary to a more intricate step or as an alternate in complex dances, but in the present connection it is the characteristic step of a performance complete in itself. The marching or processional step has a strong, simple rhythm. The chief esthetic effect of the march is the impression which it makes of mass, dignity and simplicity. Formal marching usually means the movement of a large body of persons, and the orderly progression of such a group requires simple, accurately timed motion. The erect carriage which this movement permits also adds to the impression of dignity. The experience of one taking part in the action includes, as has been said, a sense of solidarity with the group. It enhances the feeling of subordination to the whole to feel that one must conform step by step to the common rhythm; but at the same time it enhances the sense of power to feel that the whole column is swaying with oneself. For the spectator the esthetic effect depends upon visual elements. To produce a good appearance regard must be paid to the length and breadth of the line. The pageant of a moving column must present some important feature at the beginning as a challenge to attention, and then it should later work up to some kind of climax at the

end of the line. In military marches a certain emphasis is given to the front by the presence of musicians, and to the middle and end of the line by the presence of cavalry or artillery or, in ancient times, by the trophies of war. Processions have been important social functions both in ancient and modern times. Berenson writes:¹ "Processions and pageants by land and sea . . . formed no less a part of the functions of the Venetian State than the High Mass in the Catholic Church." Such ceremony has been the theme of both sculptor and painter: famous examples are the procession on the frieze of the Parthenon, and Mantegna's painting of the "Triumph of Julius Cæsar."

Church Ritual. In Christian churches of the middle ages, as in the sacred rites of the ancient pagan religions, dancing was an authorized practice. This is remarkable in view of the fact that the church took pains to suppress secular dancing; but Vuillier says:² "It is in Catholic Spain that religious dances have most notably persisted. In the time of St. Thomas of Villanueva . . . it was customary to dance before the Sacred Elements in the churches of Seville, Toledo, Jeres and Valencia." This custom is still kept up in the cathedral of Seville, and the dance, performed by choir-boys, is said to be of an elaborate and spirited character. There are parts of the service in many Christian churches of the present day which are properly classified as dancing in the broad sense of the term. In the Greek, the Roman and the Anglican rituals there are, in addition to the procession,

¹ "Venetian Painters of the Renaissance."

² "History of Dancing."

certain regulated steps and postures performed by the priest and his assistants before the altar. They contribute greatly to the beauty and dignity of the service. Thus, in churches which revive the ancient Anglican forms, the priest at the censuring of the altar stands first before the middle of the altar with an assisting minister at each side. The three all kneel and rise, the priest swings the censer three times before the altar cross; all three then kneel again, and, rising, pass slowly in unison three or four steps to the right. The steps are supposed to correspond to the rhythm of the swinging censer, and at the end of the altar the censer is swung in prescribed lines. This performance is repeated in censuring the left side of the altar, and the three persons finally return to the middle. This certainly constitutes a rhythmical and symmetrical series of movements which may with propriety be called a sacred dance.

The postures prescribed for religious exercises are expressive of the emotional states of reverence, submission and supplication: the commonest ones are kneeling, bowing, genuflexion and, in the Greek church, prostration. These are excellent examples of the conventionalized expression of emotion—in this case the emotions of fear and worship. It is interesting to notice that the bow in the church service is the same mark by which we show recognition and respect to our friends; and further, that the genuflexion appears in secular dancing and in social ceremony as the curtsy or "reverence," and is expressive, as the name implies, of courtesy and reverence. The purpose of these prescribed religious usages is set forth in an old text which shows an esthetic appreciation of

form:¹ "The changing that is in God's service from one thing to another is ordained to let it drive away your dullness, that ye should not wax tedious or weary, but gladly and joyfully, not in vain joy, but in joy of spiritual devotion, continue in God's service. Therefore sometime ye sing, sometime ye read, sometime ye hear; now one alone, now twain, now all. Sometime ye sit, sometime ye stand, sometime ye bow, sometime ye kneel. And all to the praising of our Lord Jesus Christ; and so to exercise the body to the quickening of the soul, that such bodily observances should not be found without cause of spiritual understanding." We shall find, indeed, that the spiritual understanding in esthetics is always more or less a matter of bodily observances.

The Pavan, the Gavotte and the Minuet. One of the most important of the old court dances of the sixteenth century, and one popular throughout cultivated Europe, was the pavan. Like most of the dances of the noble classes, it was decorous and grave as compared with the dances of the people. Some of these ceremonial dances were so earnest in character that they were danced to hymns and psalm-tunes. It is said that at the French court the favorite dance of Charles IX was accompanied by a melody to the psalm, "Many a time have they afflicted me from my youth." The pavan was danced in couples by a large company of persons. The steps were simple, and it was for the most part a promenade with figures not unlike the modern quadrille. The gavotte was another dance of the same period and a little later. It, too, was a dance of the courts, but not

¹ "Myroure of Oure Ladye."

quite so solemn as the pavan; for, alternating with the slow movements, there were quicker ones, with little mincing steps. It was danced to the tune of "Amaryllis," which gives some clue to its movement. Most important of all the courtly dances was the minuet. It was developed by the French, and it remained for a hundred years the favorite dance of cultivated people. It was called the queen of all dances, and praised as the epitome of all grace. A person learning the minuet had, in those days, to practise for three months before attempting an appearance; which means that there must have been numerous rules about one's carriage and motions, many airs and graces, which are no longer known or practised. The steps were small (*minutus*, hence the name), elegant and expert. Although each of these three dances has its own characteristic step, there is a certain community of spirit in them all. All have relatively slow, decorous movements and exhibit the grace which comes of perfect control. In each the different movements are finished by low curtsies or profound bows, and in each there is the like graceful use of the arms, the arms being lifted in a curve to the height of the shoulder whenever the lady and her partner join hands. There is throughout a beautiful and graceful formality. The minuet is a more highly developed dance than the others, and it should be remarked, in view of what was said about three-part rhythms, that whereas the pavan and gavotte are danced to two-part time, the minuet goes to three-part measure, which we saw was the more perfectly balanced rhythm.

Spanish Dancing. The dances of Spain have been famous for their beauty since the time of the Roman

empire. It is said that the women dancers of Cadiz were the chief glory of many a Roman feast. The Spanish people have a love for dancing which is comparable with the love of the Italians for painting or the Germans for music. There is a great deal of fire and a great deal of contrast in their dances, long, sinuous movements alternating with rapid fiery ones, graceful swaying with quick whirling, pretty demure little steps with great sweeping ones. The postures show sometimes a splendid haughtiness, and sometimes a no less splendid abandon, the audacity and subtlety of the movements and postures making an artistic performance of the very first rank. A common and characteristic movement in Spanish dances is the step known as the "pas de basque." The first step (Fig. 6) is a wide, circling one to the right side,

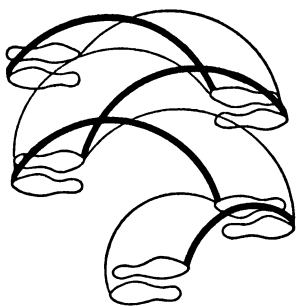


FIG. 6.

the arms being carried over to the same side, but a proper balance being kept by the body, which turns in a half-crouching attitude toward the left. This position is held until the left foot has been brought in front of the other (second step) and the weight shifted back to the right foot (third step). The left foot is then swung out to the

left, the arms being carried in the same direction, but the body now crouching to the right, and so on. This step is executed to three-part measure, but when it is repeated to right and left in this way it gives a striking

compound rhythm in which the three-part group is fundamental, but each three is a unit in a strong two-part group. Another graceful step common in Spanish dances is the "rond de jambe" or floating circle. In this, the knee is raised about waist-high and held as a pivot, while the lower part of the leg makes a circle in the air. Again, in Spanish dancing there is more movement of the body than in most western dancing, a great deal of hip-motion, and this oriental element is probably due to Moorish influence in Spain.

Other National Dancing. The Italian tarantella is famous for its beautiful attitudes and wild grace, though it wants something of the dramatic fire and the finish of the Spanish dances. In oriental dances the interest lies not so much in the steps, which are often insignificant, as in other movements—graceful lifting and swaying of the arms, and all sorts of bending and undulating of the trunk. Very different from the oriental and southern dances are the Irish jig, the English hornpipe, the Highland fling, and the dances of northern Europe generally. Their character depends upon lively steps rather than graceful, curving attitudes and elaborate arm-movements. They are more jaunty than amorous, which is quite the reverse of the oriental. The dancer who executes rapid and expert steps, but all the while holds his body and arms rigid, is certainly in a different emotional condition from one who is active all over. It would seem that the northern dancer is disposed to control his dance rather than to be controlled by it. Among German folk-dances was one in which the episodes of courtship were acted out, the final movement of the

dance being a rapid whirling motion in which the youth swings his maiden about. This was the original of our modern social waltz.

"Program" Dancing. On the analogy of "program" music we may coin the term program dancing to designate a certain type of dance which has recently become popular. This kind of dance is the attempt to express by rhythmic movement all the shades of meaning which are present in some given piece of music. The dancer executes a series of movements and postures which reflect the changes of pitch, intensity, phrasing, etc., of the music. Flournoy writes of the case of the famous Madeleine, who danced when under hypnotic influence. When a piece of music was played, or a poetic recitation given, she would interpret by an infinite variety of attitudes, gestures and steps the modulations in the auditory series. Thus, high tones provoked in her an expression of pleasure, low tones of sadness. If one played ascending octaves she would raise her arms and lift herself up to her full height; if one played descending octaves she would sink down and crouch or grovel on the floor. Such a performance is, in a sense, an imitative dance, but an imitation twice removed from the original situation, since the dance itself is a work of art, and what it derives its stimulus from is the work of art of the musician. When such artists as Isidora Duncan and Maude Allen dance to a Mendelssohn Spring Song or a Chopin Funeral March, we may feel that they are giving something just as beautiful as the music, and something congruous with the sentiment of the music, but it is something, nevertheless, which is essentially and forever different from the music. It is

possible and proper, of course, to get suggestions from music, but the real germ of an artistic dance will be, not a musical motive, but a dance motive. Some graceful step or characteristic gesture, rather than any combination of sounds, must be the central idea of real dancing.

Principles of Posture and Movement. All steps in modern dancing should start from some one of the five principal positions. Ballet dancers are required to maintain these positions rigorously, with toes turned out as in Fig. 7.

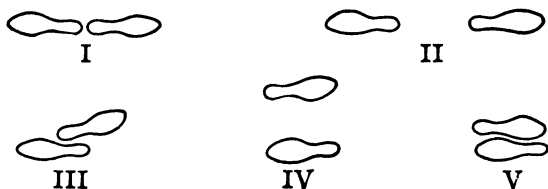


FIG. 7.

In some national dances other positions than these five are used, e.g., toes are sometimes turned in, but these cases are exceptions. The chief positions of the trunk and head are also each five in number. Body or head may be held erect, or bent to one side, or bent forward or backward, or rotated to the side. The positions of the arms are almost unlimited in number. The graceful use of the arms is the most difficult part of dancing, and it is just in this that the skill of the dancer is best revealed.

One of the most inflexible rules of grace is that the toe shall always point down as the foot is lifted from the

ground. This will make a long, continuous line with the leg, as in Fig. 8, rather than an awkward broken one, as in Fig. 9.

The principle of opposition or balance is an extremely important one for the dancer. The body must not only actually be well balanced, but it must be managed so as



FIG. 8.



FIG. 9.

to appear so to the spectator. Balance is maintained by the opposition of different parts of the body. If the trunk is bent to the right, an arm or a leg must be stretched out to the left; or, if the trunk is bent forward, the head will be thrown back. In marching, the arms and legs naturally swing in opposition, the right arm going forward with the left leg, the left arm with the right leg. Many balancing movements are made instinctively, but in order to produce an artistic effect and to constitute a distinguished carriage they must be consciously accepted and refined upon by the dancer. The posture of the flying Mercury is a good example of balance, and so, too, is the position of Fig. 10. Here the right arm and left leg are back; the left arm and right leg forward; the body bent slightly backward and the head forward.

Movements should always seem to be initiated from the trunk and to flow outward to the extremities. When the arm is moved the motion must appear to start from the shoulder or upper arm, then to follow on in the elbow and lower arm, and finally to trail into the wrist and hand. When one waves a pennant the small tip follows the undulations of the larger and fixed part, and the hand should appear to obey the same law. Fig. 11 shows the correct position of the hand as the arm moves



FIG. 10.



FIG. 11.

in an upward line. The body should appear to carry the head with it, so that in the performance of a bow or curtsy, for instance, the motion of the head will seem to follow and complete the movement of the trunk. If movements seem to begin with the hands or feet or head, the trunk will look as if it were being pulled along or run away with. The body will not look poised unless its movements center about the trunk.

Other rules of movement prescribe that all parts of the body shall be kept as flexible as may be; or, rather, as responsive as possible to the slightest impulse to movement. Movements should usually be made in curves. In changing from one position to another the arms and legs should not be kept extended, but should be drawn in

toward the body and then extended into the new position. In this way there is a constant reference to the center of balance. The arms should never hang straight down at the sides, but when they are at rest should hang in a slight outward curve.

These rules are a part of the formal technique of dancing. They indicate some of the conditions to which artistic imagination is limited when it works with the moving human form as its medium.

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CHAPTER VII

MUSIC

Primitive Music. The two sources of musical effect are rhythm, which unites music with other arts, and tone relationship, which separates it from others. In primitive music, we are told by those who study savage customs, the rhythmic element is far more important than the tone sensations. The practice of keeping time for dancers by shouting and beating drums is the original of music. "Dance, poetry and music", says Grosse,¹ ". . . form a natural unity, which can only artificially be separated." Time and rhythm are managed by savage performers, it is said, with truly wonderful precision. In pitch relationships, however, they seem to be less precise. It is this latter fact, probably, which has led to the belief that primitive folk employ intervals which are foreign to our scale and cannot be represented by our notation. Fillmore, who made a study of many of the American Indian songs, thinks this is a mistake. He says:² "Not one has an interval different from those we employ." He says that the Indians often sing these intervals a little off key, just as civilized persons may, but when they hear the correct and the incorrect intonations reproduced they choose the correct ones, insisting that that was what they meant to sing. Primitive songs are simple and

¹ Op. cit.

² "Harmonic Structure of Indian Music." *Am. Anthro.*, vol. I.

monotonous, sometimes having as component tones only a key-note with its third and fifth. The principle of tonality is commonly observed. Wallaschek maintains that savages have also a perception of harmonic relations. He says:¹ "The Bechuana also sing in harmony. The melody of their songs is simple enough, consisting chiefly of descending and ascending thirds, while the singers have sufficient appreciation of harmony to sing in two parts." It is safe to assume that the musical perception and practice of civilized peoples are but the elaboration and refinement of the perceptions and practices of primitive peoples, or, as Meyer says,² "that the fundamental psychological laws of music are the same all over the world."

Physical Basis of Tone Differences. The physical basis of sound is the vibration of some body, such as a taut string, a column of air, a piece of metal, wood or glass. These vibrations are communicated to the air, and the air waves in turn set up motion in the mechanism of the ear. When the air waves are irregular or aperiodic in their vibration the sound we hear is called a noise; but when the air waves are periodic the sound is called a tone. It takes at least two vibrations to give us the impression of tone; hence a sound only one vibration long is also a noise. Noises are commonly more complex than tones, being, indeed, combinations of tones whose vibrations interfere with one another. Noise and tone do not strictly exclude each other; there is often regularity enough in a noise to give it definite pitch, and there are often perceptible elements of noise in agree-

¹ "Primitive Music."

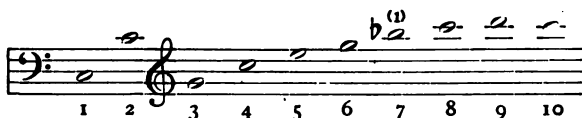
² "The Psychology of Music." *Am. Jour.*, vol. **xiv**.

able tone combinations. The recognized medium of musical expression is tone.

Every tone has, besides its duration, three attributes — intensity, pitch and quality. The intensity of a tone depends upon the amplitude of the air waves which strike the ear. We can easily see the greater amplitude of a vibrating string when it is plucked more forcibly than usual. The pitch of a tone depends upon the number of air vibrations per second which reach the ear; the greater the number, the higher the tone. The limits of hearing, that is, the lowest and the highest tones which the human ear can well detect, are about 16 and 50,000 vibrations respectively. Most of our musical experiences fall considerably within these limits, ranging between about 64 and 5,000 vibrations. The human ear is able to discriminate much finer differences of tone than those in practical use in any musical scale. A difference of one-fourth of a vibration can easily be told under favorable circumstances; whereas, in our scale, the smallest intervals differ (in the octave of middle C, 256 vibrations) by fifteen to thirty vibrations, approximately.

The quality, timbre, or, better, the clang-tint of a tone is that property which distinguishes tones of the same pitch and intensity from one another. The peculiarity which allows us to speak of organ-tone, piano-tone, cornet-tone etc., is the characteristic element of clang-tint. Clang-tint depends upon the presence of overtones which accompany a fundamental tone. In terms of vibrations this means that there is a difference in the complexity of the air waves which strike the ear. A sonorous body — a string, for example — vibrates as a

whole, and at the same time in segments. The slowest vibration-rate—that of the string as a whole—gives the fundamental; and the rates of the segments determine the higher partials. A rich tone is really a harmony of several tones, and the fundamental with its overtones is called “the harmonic chord of nature.” The partials are represented in the accompanying scale. No. 1 is the



fundamental or first partial. An octave above is No. 2, the second partial (or first overtone). An octave and a fifth above is No. 3, the third, partial etc. Most musical instruments emphasize only the first few partials, but different instruments, by bringing out different partials, get in this way their characteristic color or clang-tint. Violins resound strongly with the consonant overtones and have a brilliant and also a mellow quality. Some trumpets ring with the higher overtones and are brilliant in character but somewhat harsh, since the high overtones are dissonant. Tuning-forks give nearly pure tones, and their freedom from partials makes their effect soft but dull. A rich tone gives the illusion of being slightly higher in pitch than a pure one. The reason probably is this: that all the higher partials sounding in company with the fundamental tend to make the whole impression seem higher in pitch than it would if the fundamental were sounding alone.

¹ The seventh partial is slightly flatter than this note in our scale.

The beauty of individual tones may be said to depend upon their relative freedom from the element of noise, upon their richness in the more harmonious overtones, and upon their intensive shading, a perfect tone being usually played or sung a little fuller in the middle than it is at the beginning and end.

Consonance and Dissonance. If we had an instrument which would sound in succession every perceptible degree of pitch from lowest to highest, we should notice at fixed intervals a peculiar similarity between different points on this extended scale; the pitch character, although constantly getting higher, would seem in a sense to repeat itself at regular intervals. These intervals are what we call octaves. When the vibration-rate of one tone is twice that of another the tones are felt to have a resemblance or to blend in a unique way. This blending smoothly is the fact of consonance. Helmholtz has ascribed consonance and dissonance to the absence or presence, respectively, of beats. Certainly it is true that when beats are present in a striking degree the effect is rough and harsh, but since beats may be present when there is an impression of consonance and absent when there is an impression of dissonance, they cannot be assumed as the sole cause of the feeling of dissonance. Stumpf has proposed as the psychological criterion of consonance the feeling of blending or fusion between tones. Persons with musical ear agree that the greatest identity, or closest degree of fusion, exists between a tone and its octave, next in identity being the fifth and the fourth. Stumpf, working on unmusical subjects, found an interesting confirmation of these judgments. Persons

who are unmusical often find great difficulty in discriminating the tones in the scale. To tell a tone from its octave is hardest, to tell it from its fifth is next hardest, and so on. This difficulty in discrimination may be taken as a measure of consonance between the intervals. With unmusical persons, then, this feeling of unity amounts to an actual inability to discriminate, while with musical persons the feeling of unity is also strong, though they can clearly discriminate the tones. Just why certain combinations give the experience of unity and others do not has never been explained in a wholly satisfactory way.

The following list gives, in order of smoothness, the consonant intervals and the ratios of their vibration-rates;

1. Octave.....	1:2	5. Major third.....	4:5
2. Fifth.....	2:3	6. Minor third.....	5:6
3. Fourth.....	3:4	7. Minor sixth.....	5:8
4. Major sixth.....	3:5		

The octave, fifth and fourth are known as the perfect consonances, the others in the list as imperfect consonances, and all other musical intervals as dissonances. (It is understood, of course, that intervals of an octave and a fifth, an octave and a third, etc., are regarded in this connection as equivalent to a fifth, a third, etc.)

The most important three-toned consonances are the chords of the major and minor triads. In these three positions of the major triad it will be noticed that all the



intervals are consonances. In a the intervals represented are a fourth between C and G, a minor third between G and E, and a minor sixth between C and E. In b the intervals are a fourth, a major third, and a major sixth; and in c there are a fifth, a major third and a minor third. In the three positions of the related minor triad, a' contains a fourth, a major sixth and a major third; b' contains a fourth, a minor sixth and a minor third, and c' contains a fifth, a major third and a minor third. These triads contain only consonant intervals, but we cannot tell the degree of consonance in the triad without knowing the position of the component intervals. Position c' of the minor triad contains exactly the same intervals as position c of the major, but it is a less consonant chord than the major.

The esthetic value of consonance and dissonance is a matter on which opinion seems to have changed within historic times. To the Greeks the octave, or most perfect consonance, appears to have been the most agreeable. Their two-part singing consisted in two voices an octave apart singing the same thing. The medieval musicians also doubled their melodies, but at the interval of the fifth or of the fourth. The third was sometimes allowed in their music, but it was considered to be a discord. It is quite true that for modern taste consonance is, on the whole, very pleasant and dissonance more or less unpleasant, but it would be a serious mistake to conclude that intervals are pleasing in proportion as they approach perfect consonance. The fact seems to be that the major third, though inferior in consonance to the octave, fifth, fourth and major sixth, is to modern ears the most

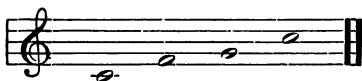
satisfactory interval. (Meyer says a very slightly augmented major third.) It has been suggested that the major third offers the best balance between the factor of unity and that of variety.

There is a great deal of difference in the esthetic value of different dissonances. To strike all the tones of the scale at once makes a bad discord, but to strike the chord of the dominant seventh makes a dissonance of a highly agreeable and significant nature. It is true, however, that we do not wish to dwell very long on the chord, and this fact is a clue to the fundamental esthetic distinction between consonance and dissonance. Consonance is final or static in character, and dissonance is transitional or dynamic. The one is stable and conclusive, and hearing it we are content to expect nothing more; the other is unstable and urgently suggests moving on to something else. It is not merely anything else which the dissonance seems to urge, but it is some related concord which will complete its meaning. The dissonant and consonant moments of music might be compared to the "transitive" and "substantive" aspects of the thought process itself. Each is essential to musical harmony of any complexity.

Musical Scales. The scale is the standard compass of tones with which the musician works. Why is it that out of all the possible tones there are he should fix upon a certain set of intervals and limit his composition by those? We can readily understand that for harmonic purposes the consonant intervals would be desired, but we may ask what consideration has led to the filling up of the diatonic scale with intervals of the second and the semitone. The semitone, which is neither the smallest inter-

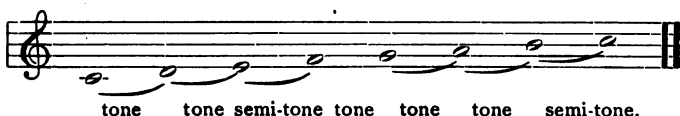
val that the ear can hear, nor even that the voice can sing, is by no means the smallest interval that can give esthetic pleasure. Some oriental music is based on the quarter-tone scale, and experiment has shown that even occidental subjects can, with practice, find genuine esthetic pleasure in music containing intervals of about a quarter-tone (Meyer). Emerson has experimented with "melodies" composed of sounds whose vibration-rates all fall within the limits of a single musical tone. He reports that his subjects found pleasure in many of these melodies, and that their favorite intervals were from four to eight vibrations less than the full tone or the semitone.

The modern diatonic scale must be explained as an historical development rather than as a combination of intervals which in themselves are the most pleasing to the ear. Our scale goes back to the arrangement of tones on the Greek tetrachord. This was a four-stringed instrument of which the first and last strings were separated by the musical interval of the fourth. When two of these tetrachords were set together, with the lowest note of one and the highest note of the other tuned just an octave apart, the following intervals appeared. Now



the interval between the two middle notes, the fourth and fifth, is one tone, and in each tetrachord there is room for about two and a half such tones. The Greeks filled up the scale with these tones and semitones. They did not always arrange them in the same order, but within each tetrachord they placed them sometimes as semitone,

tone, tone; again as tone, semitone, tone; or as tone, tone, semitone. This last arrangement gives us the order of our own diatonic scale. The different orders of tone



and semitone gave rise to different modes or characters of scale. These survived, under changed names, as the ecclesiastical modes of the middle ages.

Now the tones of the pure diatonic scale, i.e., as derived from the vibration-rates of sounding-strings, are not all equal, nor are the semitones really half-tones. The vibration-rates are as follows to each other:

C	D	E	F	G	A	B	C
24	27	30	32	36	40	45	48
	$\frac{8}{9}$	$\frac{9}{10}$	$\frac{15}{16}$	$\frac{8}{9}$	$\frac{9}{10}$	$\frac{8}{9}$	$\frac{15}{16}$
Major tone	Minor tone	Semitone	Major tone	Minor tone	Major tone	Semitone	

It is evident that if one tried to transpose a melody on this scale the intervals would come out wrong. But if the major and minor tones were made equal and the whole scale filled up with exact semitones, then a melody might start on any note of the scale and proceed with the proper intervals. With the rise of instrumental music there came a demand for a freer use of chromatic intervals, and of modulations from key to key. But with a keyed instrument it would make an unmanageable keyboard if all the perfect major and minor tones, all the perfect sharps and flats, were included. For the sake of transposing—and this in a rapid and convenient

manner — the scale of equal temperament was devised, in which the whole tones are equalized, and between the notes of the whole tones other tones are inserted to serve as the flat of the higher and the sharp of the lower. The whole scale is thus made up of twelve semitones. This is by no means an exhaustive account of the changes which have taken place in the development of the modern scale, but enough has been said to show that the intervals we now use were not chosen because of any superior sensuous charm.

Two modes are recognized in modern music—the major and the minor. They are distinguished by differences in the order of tones and semitones. Their emotional quality will be discussed later.

Tonality. The fundamental or key-note of a scale is called its tonic. All the intervals are reckoned upward from this. A piece of music is said to possess tonality when it indicates plainly in what key it is composed. Such a piece of music will often start with the tonic; throughout its course it will emphasize the notes which are strikingly related to the tonic and at its close will always return to the tonic. This gives the key-note a peculiar importance. Is there any reason for this? Why should we favor the lowest tone in our scale and always close on that? Let the student play alternately, several times, C and G, closing now on one and now on the other. Then let him try other intervals in the same way, as C-E and C-F. He will be pretty sure to find with C and G that C makes the better ending, with C and E that C is better, and with C and F that F is the more final and satisfying close. These experiments may be carried

further and the results formulated in this way:¹ When two notes are sounded in succession we find that we like to end on the note which is represented by a power of two in the ratio of its vibration-rate to the vibration-rate of the other note. For example, the ratio of vibration-rates for C:G is 2:3, and here we find that we like to end on the note which is represented by 2.¹ Again, the ratio of C:E is 4:5, and here the lower note represented by 2² is the preferred close. The ratio for C:F is 3:4, and in this case we find that the higher note gives the feeling of finality. All semitone successions (their ratio is 15:16) should end on the higher note. In some intervals, however, neither note is represented by a power of 2; the major sixth has the ratio 3:5 and the minor third 5:6. In the octave, on the contrary, both notes 1:2 are powers of 2 ($1=2^0$). In these cases another consideration comes in to determine which is the better close. As Meyer shows, the "falling inflection," or close on the lower tone, is preferred. Coming back now to the question about the key-note we can see some reason why this should be the closing note. It is lower than all the others when in its normal position, and hence has falling inflection in its favor. Its vibration-rate as compared with the interval of the second, the major third, the fifth and the seventh is a power of 2. The tonic thus forms a point of orientation, or of common reference in the scale, and this reference to the tonic, this feeling for the key, is about as important for purposes of musical composition and design as the sense of direction is for the designer in space forms.

¹ See Meyer: "The Psychology of Music," Am. Jour. xiv.

Thus far we have spoken only of the feelings of finality which obtain between simple tones. In successions of chords the feeling of finality is even more emphatic than with simple tones. Let any one try the two following progressions 1-2 and 1-3 playing them both forward and backward. In going from 1 to 2 it is evident that we get a combination of finality feelings. It is true that we go from F to E, which by itself is contrary to finality.



But we also go from D to C, and from B to C, both being successions toward a power of 2; and further, the chords as a whole form a progression from dominant to tonic, that is, from G to C, which again is toward a power of 2. In progressing from chord 1 to chord 3 the steps from D to C, from B to C, and from G to E flat are all in the direction of finality; and again, the chords as a whole are a progress from G to C. It would seem from this that the minor chord ought to give a greater sense of ending than the major, but there is another factor which works against that result. In chords we are dealing with consonances and dissonances, and, as we have seen, it is only the consonances which give the feeling of stability and rest. The fact, therefore, that our minor chord is less consonant than the major works against it as a satisfying close.

Rhythm. With us, as with primitive peoples, the rhythmic element in music is extremely important. A false stress changes the character of a melody quite as much if not more than a false pitch. It is a common ex-

perience to find in trying to recollect an air that, when the "swing" of the music comes back, the tones easily follow. These measures, from a song of Thomas Arne's, show how completely the effect of a melody is altered by a change of



rhythmic form. The last group of ten notes repeats exactly the same sequence of pitch intervals as the first ten notes, giving them in the same length of time and with the same number of quarter and eighth notes, and yet the rhythmic form is so different that it requires a complete motor readjustment on the part of the singer and the hearer. An acquaintance of mine had known this tune — enough to play and sing it accurately — for as much as a year without realizing that she was singing the same pitch intervals in those two phrases.

In music a strict distinction is maintained between stress accent and quantitative accent. Stress is indicated either by the position of a note in the measure — the first note usually receiving the stress — or by special marks of emphasis. Length of tone is indicated by the form of the notes, as ♩ ♪ ♫ , etc.

The music of the medieval church was arranged so as practically to suppress rhythmic effect. Parry writes on this point as follows:¹ "The separate voice-parts

¹ Oxford Hist. of Music, vol. iii.

sometimes had rhythmic qualities of their own, but they were purposely put together in such a way as to counteract any obvious effect of rhythm running simultaneously through all the parts; . . . the music represents the physical inactivity of a congregation in the act of Christian worship, wherein, unlike some Pagan religious ceremonies, muscular manifestations are excluded, and everything is confined to the activities of the inner man. This is the ultimate meaning of the exclusion of rhythm from the old church music. To the old composers rhythm evidently represented physical action, the attribute of the perishable body, and was therefore essentially secular."

With the rise of artistic secular music and the development of instrumental style, rhythm once more assumed its natural and important place, which in folk-music it had never lost. Its connection with the dance became signalized by the fact that much of the best secular music of the seventeenth and eighteenth centuries was inspired by dance rhythms and some of it written expressly as an accompaniment to the dance. The practice of executing suites of dances in which the slow and the quick dances alternated called for corresponding music, and this led to the writing of music in the successive divisions known as "movements."

Modern music recognizes more and more the rich field for variation which complexities of rhythm afford. This passage from Brahms (p. 120) shows an interesting arrangement. Beginning with the bass there is in the first measure a rhythm of 1 2 3 4' 5 6 7 8', but in the next measure, when we get to the second half, the accent is slid over to the fifth note, thus indicating that this

measure is in 1' 2 3 4 5' 6 7 8 rhythm. The third measure, however, comes back to the type of the first, and the fourth to the second. There are thus in the bass two



alternating kinds of rhythm. The same thing is true of the upper part taken by itself: beginning with the first full measure the rhythm is 1' 2 3 4 5' 6 7 8, but in the second the strong accent comes on the fourth, thus indicating a change to the other type, etc. Now, as an added complexity the upper and lower parts are so placed that while one is going 1' 2 3 4, the other is going 1 2 3 4'. This contention between the rhythms leads to a conflict, in the mind (and body) of the hearer, between motor impulses. This conflict of impulses is the basis of the emotion which attaches to our enjoyment of such a rhythmic scheme.

Melody. A melody is a succession of notes which show some degree of consistency or unity. The simplest type of musical "composition" is the reiteration of some characteristic group of notes. This is exemplified in savage music, where the only kind of "development" which a motive receives is undying repetition. With the civilized sense for organization there comes a taste for higher organization in melodic forms. Melody, for us, must show more than this primitive iteration—it must have contrast, symmetry and balance.

Modern music must emphasize not only the tonic, but it must also give a certain prominence to other notes which contrast with it, particularly to the dominant or complementary note. It is a principle of musical design that there should be a movement away from the key-note toward the contrasting note, and then, eventually, from the contrasting note back to the tonic. Now, in any discussion of melodic form the analogy between music and language becomes apparent. Although in both there is room for a great deal of arbitrary arrangement, yet, just as words must follow one another in certain ways in order to make linguistic sense, so, too, tones must follow one another within prescribed ways in order to make melodic sense. The simplest melodic unity is the phrase. A musical phrase is commonly two measures in length, though it may be more or less. This is enough to suggest rhythmic character. The next higher unity usually combines two phrases into a group known as an "antecedent" or "question." The antecedent, then, combined with its "consequent" or "answer" forms a "period." These eight measures from Haydn make a period com-

ideas. It is true that certain melodies are a common heritage of these two peoples, but here is part of one which is distinctively Scotch and another which is characteristi-



cally Irish (see below). Parry gives this latter tune as one of the most perfect examples of what he calls the emotional type. He says:¹ "The cumulation of crises rising higher and higher is essentially an emotional method of design." Folk-music carries a certain guarantee of worth along with it; for a melody which is produced without theoretical preconceptions, which has little or no harmony to support it, and which gets accepted and sung by successive generations, must have something genuine about it.



¹ "The Evolution of the Art of Music."



Another source of characteristic melody is the body of music which grew up around the ritual of the medieval church. It is more limited in range of emotional expression than folk-music, because it is the medium of an institution, not of the instincts of a people. Yet some of it is very perfect in its kind. This music was written in the ecclesiastical modes, and, just as we feel that there are distinctive qualities about the major and minor scales and the melodies that are written in them, so the medievals felt the distinctive qualities of their eight modes. It is, in part, this difference in scale which makes the ancient plain-song sound strange to modern ears. An example of this type of melody is the following possibly familiar tune, a Stabat Mater from the church hymnal. But no matter how well one may know such a melody it will always remain characteristically remote from our other musical experiences.



The ecclesiastical scale or mode in which this is written is as follows:

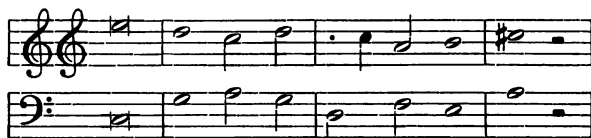


in which the semitones stand in the lowest positions of the tetrachords. The tonic of this medieval scale is not the lowest note B but the fourth¹ above it, namely, E, and the dominant is not the fifth above this tonic, but the fourth above it, namely, A. The point in the above melody where the scale quality strikes us most is in the closing interval D-E, which occurs at the end of the fourth measure, between the fifth and sixth measures, and the seventh and eighth measures, and finally at the last close. This is a whole-tone interval, whereas in the modern scale the tone which leads up to the tonic is only a semitone. The effect of medieval church music depends not merely, of course, upon its formal conditions, but upon the fact, as well, that it expresses the moods which belong with medieval religion,—a religion of asceticism and the denial of worldly interests. As long, however, as there remains for us any charm in “old, unhappy far-off things,” these melodies, with their grave and alien beauty, will hold a place as a source of esthetic enjoyment.

Polyphony. In polyphonic, or many-voiced music, there is a weaving together of two or more independent melodies in such a way as to preserve their individuality,

¹ Notice (p. 115) that in the interval of the fourth the higher note has the end-quality.

and yet to make them harmonious with one another. In the early church, singing in unison was the regular practice. But it was not always easy for the high and the low voices to carry the same melody, and hence the practice arose of doubling the tune, the lower voices being pitched sometimes a fifth, sometimes a fourth, below the upper. This was not wholly satisfactory from the artistic point of view, and gradually certain differences were introduced into the accompanying part, till at length it became a melody with character of its own. This was the origin of polyphony. It is essentially a choral art, and the structure of the music reflects this fact. Music which is to be rendered by a mass of human voices cannot have the wide range of pitch, the rapidity of execution, the free use of chromatics, etc., which are possible and proper for instrumental music. It must be more deliberate and sustained, and must move by plain, easy intervals. This is a good example of how the composer's thought is molded by the medium through which he expresses himself. The artist with a polyphonic imagination always works within these conditions of his art, namely, that each part must have individual interest, and must progress in a singable manner. One of the elements of beauty in polyphony is the independent motion of the voices. In this example (from a litany by Palestrina)¹ the bass and tenor have



¹ Oxford Hist. of Music, vol ii.

contrary motion, except in the fourth step and the last. Each melody is attractive, and as it moves we are impelled to follow it; but then the exciting moment comes when we realize that the two are moving in different directions and that we want to go both ways at once. This conflict of impulses is the basis of our emotion. But the conflict is prevented from becoming a painful disruption, and a pleasant affective tone is given to the emotion by the harmony between the parts and by the occasional movement in the same direction. Polyphonic music, more than any other perhaps, is fitted to enlist attention in one direction, then to solicit it in another, and so to keep the hearer in a state of excitement which often threatens to become distraction. When, however, it has sufficient unity and clearness there is nothing more perfect musically.

Harmony. Harmony, as against melody, is concerned with the succession of chords or clangs rather than of simple tones. To combine dissonances and consonances in agreeable and intelligible progressions is its chief problem. At first thought it might seem that the chief advantage of harmony, its chief difference from melody, lay in the production of greater richness and fullness of sound. But though the sensuous charm of full consonances is an essential thing, it is no more the whole of harmony than the single tone is the whole of melody. If harmony were no more than the addition of chords, i.e., if it were analogous with rich tone, we might logically expect that we could improve a melody by playing it in consecutive fifths or major thirds, since these are good consonances. In fact, of course, it would spoil the melody. The point

to be insisted upon is that the progression of chords is almost a separate art-medium and is vitally different from the progression of single tones.

Polyphonic music is harmonious, but the conception of polyphonic music and that of harmonic music are different. In polyphonic, the chief consideration is the progress of the individual voices, and the fact that they harmonize is more an incidental necessity than a final aim. Harmony, on the other hand, is homophonic. In it the separate parts do not stand out individually, but all are more or less subordinated to one part. Harmonic chords, therefore, while they are more varied and complex than single tones, are more single and unified than the chords of polyphony.

Now, although harmony never means the simple addition of consonances, yet we may distinguish these two ways in which a melody may be harmonized: One in which the chords enrich and emphasize the melody without essentially modifying its character, and another in which the chords do modify the character and emotional coloring of the melody. The following cadence from Bach¹ is an example of the first kind; its minor



¹ "The Passion According to St. Matthew" final chorus.

SCHUBERT

The musical score is written for piano and voice. It consists of two systems of staves. The first system has a vocal melody in the upper staff and a piano accompaniment in the lower staff. The melody is in B-flat major, with a key signature of two flats. The accompaniment consists of a steady eighth-note pattern in the right hand and a bass line in the left hand. The second system continues the melody and accompaniment. The melody is marked with a '1' above the first measure, indicating a first ending or a specific interpretation. The accompaniment continues with the same eighth-note pattern.

harmonies increase the effect but do not alter the meaning of the melody. The chords from Schubert ¹ which follow it enter more vitally into their melody and really change it. Without the accompaniment the melody would be a purely minor one, but with the accompaniment there are two changes into the major. We may say that the melody is ostensibly one thing, but really another. Here we have a conflict, not of separate parts, as in polyphony, but rather a conflict between possible interpretations. It is a

¹ Erlking.

subtle contest between the leading part and the harmonic setting, and the more keenly we feel these individual factors the more vivid is our pleasure in their final union.

The aim of harmony is not the possession of consonances, but the achieving them. Harmony is the transition from dissonance to concord, or the deduction, by some diversified and adventurous path, of unity out of dissonance, agreement out of disagreement. It is not the concord by itself that we like, still less the harsh dissonance but it is the process by which one is evolved from the other which we enjoy. Creative imagination implies, in this connection, the perception of musical similarities; and the essentially constructive thing is the perception, on the composer's part, of some identity between this dissonance and that consonance. Of course this perception of a relationship is not the whole story. There are different ways of resolving a dissonance, and the composer knows enough about them to make a choice. The intervening chords which he finally writes are his means of expressing and demonstrating the connection between the dissonance and consonance.

Historically, the development of harmonic principles went hand in hand with the development of instrumental resources and the reorganization of the scale. Modern music has, therefore, opportunities for key-contrasts and for varieties in tone-color which were beyond the scope of the older schools. The wider the possibilities of variation and contrast which it affords, the wider is the range of emotional experience which the art of music can render.

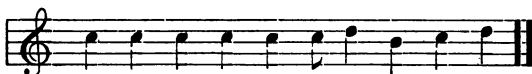
Expressiveness in Music. In speaking of tones, chords, scales, rhythms, etc., we have been dealing with the formal side of music. But even in the very elements of form we may find elements of expressiveness. Thus a single tone may express a greater or a less degree of excitement according as it is high or low in pitch, loud or soft in intensity, brilliant or dull in clang-tint. A single chord expresses restlessness if it is dissonant, stability if it is consonant. The scale alone expresses one thing if it is major, another if minor, one thing if it is played up, and another if it is played down. Pure rhythm has also some expressive power, as we have seen.

The analogy between music and speech is a close and suggestive one. Indeed, the theory that music is a kind of impassioned speech has vitally affected the development of certain musical forms, namely, the opera and the lyric song. Wagner in opera and Schubert in the lyric have notably suited their music to the words that it accompanies. But even music which is not associated with words, music which is concerned with more purely formal problems, shows a strong linguistic quality. The phrases, periods, cadences of musical form have their like, as we have seen, in the phrases, periods and cadences of verbal language. The difference which forever separates the two is that each word has a specified intellectual function, a particular intention of its own which is more or less independent of the pitch, intensity and clang-tint with which the word is pronounced. Music cannot reproduce these special intentions; for if it were literally possible, say, to translate a poem into music, i.e., if there were an essential identity between

certain words and certain tone combinations, then any musical person ought to be able to write out the poem on hearing the music, or the music on hearing the poem. What music can do is to represent the general intonation of language and much of its emotional effect. The following example¹ is a specimen of musical intervals



Sic can - ta com-ma, sic du - o punc-ta : sic ve - ro punc-tum.



Sic sig - num in - ter - ro - ga - ti - o - nis?

imitating the intonations of speech. It is a formula from an old church manual and directs the singers of the liturgy how to punctuate their music. The following specimen from Haydn² is a good example of the talking quality of pure music.



¹ Quoted from Helmholtz.

² Quoted in Oxford Hist. of Music, vol. v.

The expressiveness of music is increased by another analogy which it exhibits. This is the analogy between music and action. The rhythmic element in music, or its temporal succession, inevitably stimulates and suggests movement of some kind, while the pitch variations tend to qualify the nature of that movement. These actual or incipient movements help us to fancy, as we follow a piece of music, that it is we ourselves who are moving forward, now exalted, now depressed, now hurrying, now dallying toward some wished-for goal. This identification of one's own volition with the progress of the music gives rise to an emotion which Puffer calls "the only intimate, immediate, intrinsic emotion of music — the illusion of the triumphant will!"¹ This interesting theory has this merit, among others, that it does justice to the great motor suggestiveness of music,—though I am not sure that the "illusion of the triumphant will" is not produced by other art-forms also. The analogy between music and action must be qualified by saying that, while music expresses the general characteristics of action, it cannot of itself express specific deeds in their details.

These analogies of music with speech and with action show that music is able in a general manner to render the moods of human life and intercourse. It will be enough to review a few of the formal devices by which this is done, to mention, for example, the effect of major and minor key, of chromatic and diatonic intervals.

We are used to associate minor strains with mournful sentiment, but major ones with gaiety and cheer. This

¹ "The Psychology of Beauty," ch. v.

distinction, though very generally felt by us, is not a universal one. Primitive people, we are told, do not make major and minor correspond with moods of joy and sadness. Of the two folk-songs on page 123 the first one, in the minor key, is the gayer of the two. The reason why we feel a somber quality in the minor is explained by Helmholtz on the ground of the dissonant combination-tones which are present in minor chords. He says:¹ "The foreign element thus introduced into the minor chord is not sufficiently distinct to destroy the harmony, but it is enough to give a mysterious, obscure effect to the musical character and meaning of these chords." The unsatisfying character of the minor is probably due not alone to the fact of dissonance, but in part also to the fact that the minor represents a sort of defeated expectation. The major scale is really our fundamental scale, and the major third is its characteristic interval; when, therefore, we hear any third it seems not unreasonable to suppose that we hear it in terms of the major third as a standard. If the interval we hear is a major third, it coincides with the standard and we accept it with a kind of half-conscious satisfaction. But if the interval we hear is a minor third, we have a slight feeling of discrepancy, as if the interval had failed to reach its due proportion. I do not mean that we have the major third clearly in mind, and that we purposely stop for a comparison, but merely that the minor third gives an impression of having fallen short of an expectation. This explanation would allow for the fact that primitive peoples seem not to feel the depressing effect of the minor; for with them the scale

¹ "Sensations of Tone."



They express strength, pathos, and growing excitement. The full chords give strength, the irregular rhythm and rising pitch give growing excitement, the minor key and falling semitone give it pathos.

Imitative Music. The belief seems to be entertained by some persons that there are literally no limits to the things which music, in the hands of a master, may be made to imitate or express. And there seem to be other persons who believe that music does not imitate anything, but forms a world by itself independent of suggestions from the world of ordinary life. We shall have to take the middle ground of common sense and say that assuredly there are things which music legitimately imitates, but that there just as surely are limits beyond which it cannot imitate.

In the preceding paragraphs we spoke of certain similarities between music and language and action; and

we noticed that music is able in a way to render some aspects of action and speech. Other things which it may legitimately and beautifully imitate are auditory impressions like the songs of birds, the sound of wind and of water, the whirl of a spinning-wheel, the chime of bells, etc. Of course the imitations are not so exact that we are fooled by them, but they are real, nevertheless, and the musical sounds contain sensuous elements similar to the things they represent. The examples given are all auditory. We may, perhaps, go even further and say that music may, in a certain limited sense, represent visual impressions. In the chapter on imagination we said that an artist may suggest similarities or identities which can be grasped only by feeling and not by a definite analysis of sensuous contents. Such a case we find in Wagner's fire-music, where the crackling, leaping flames are represented partly by the lively tune and partly by the clang-tint of the instruments as the melody mounts up from the more sober-tinted ones and breaks into the tinkling of the triangles. There is, no doubt, a congruity between the visual experience of watching the fire and the auditory experience of hearing this music, but the congruity is a purely emotional and general one. The music does not necessarily and inevitably call up in our minds the visual picture of the fire.

In discussions about "program music," that is, music in which the composer tries to set forth in some detail human character and action or natural objects and events, in such discussions Beethoven is sometimes quoted as saying that he always had a picture in mind while he was composing, and that he worked from that.

The whole point is that he did work "from" it, and not "toward" it. To receive an inspiration or stimulus from a picture is one thing, but to try to reproduce through music exactly that picture in the minds of other persons is quite another thing. Every artist must get his experience from life, and a big part of life is visual, but no matter what the source of his feeling the final aim of the musician is musical beauty, not rivalry with the art of painting.

Character and Ornament. We often feel that there is a sort of opposition between that quality in a piece of music which we call its individual character, and that quality by which it conforms to certain conventional standards of musical beauty. Folk-music and the music of the greatest masters will usually stand out as individual, that is, the melodic ideas will strike us as unique and as having some meaning and some backbone, so that we should recognize and remember them. Music, on the other hand, which is too urbane to show individuality, depends upon trills, runs, turns, grace-notes, etc., for its beauty. These ornaments are in the nature of standard "properties" which are attractive in themselves, and which may be added in the desired quantity to any tune. The very fact that they are

"Aileen Aroon"



"Robin Adair"



common property tends to make these embellishments blot out the individuality of any tune they are applied to. An example of the unfortunate use of embellishment is found in the English form of "Robin Adair." It introduces an ornamental change into the Irish tune "Aileen Aroon," but in so doing it merely obscures the outline of an air which is more characteristic and beautiful without the change.

There is, however, a legitimate place for the introduction of ornament, and where it does not obscure the character of the music it is, of course, an added beauty. There are cases, indeed, in which character and ornament coincide. A very charming example is found in Arne's "The Lass with the Delicate Air." The effect of this music is undoubtedly ornate, and yet there are no superfluous notes; if we try to leave out any, we spoil the real spirit of this polite ditty. We may even say that pure ornament is also expressive. The player or singer who can be lavish of ornament shows thereby a certain facility and ease, and gives the agreeable impression of having "surplus energy."

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CHAPTER VIII

COLOR

Physical and Physiological Basis of Color. When a pencil of white light is directed through a prism it is spread out into a series of colors called the spectrum, always in the following order: red, orange, yellow, green, blue, violet. The colors are produced by the vibration of waves of ether, ranging from 440,000 million per second for red, to 790,000 million per second for violet. Pure color is the result of simple vibration-rates; white light is the result of the combination of certain vibration-rates. The color purple does not appear in the spectrum, but is made by a mixture of the two end colors. When a ray of red light passes through the optical mechanism and strikes the retina, it stimulates the endings of nerves which carry the impression to the brain and so give rise to the sensation red; a ray of yellow light causes a sensation of yellow to be stimulated, etc. If the red and yellow rays are mixed they will cause a sensation of orange to be stimulated, or, even if the rays are not mixed, but should both strike the same point on the retina, either at the same time or in quick succession, they would also cause orange to be seen. This is to say that color mixture may take place on the retina itself, the rays traveling separately until they reach that point.

Colors may vary in three ways, aside from their duration and spatial extent, namely, in brightness, in saturation

and in hue. The brightness of a color is determined by the amount of white light with which it is mixed. To mix a color with white or with black is to increase or to decrease, respectively, its brightness. The saturation of a color may be called its fullness or intensity of tone; hence perfectly homogeneous light would be completely saturated, and any mixture would decrease the saturation. Saturation may be varied, without changing the brightness or the hue of a color, by mixing with the color a gray which exactly equals it in brightness. The hue of a color is varied by mixing with it the colors on either side of it in the spectrum; thus yellow may be varied in two ways — toward green or toward red. Physically it is right to speak of black as the absence of light, and of white and

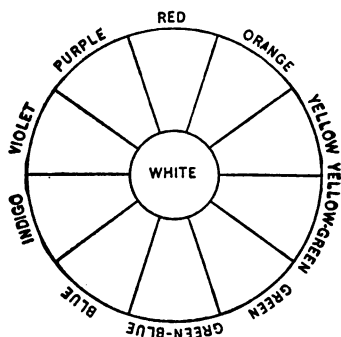


FIG. 12.

gray as colorless light. But, psychologically, black and white and all the intermediate grays have individuality and positive character, and they are properly called colors.

Complementary Colors. Two colors, which when mixed together produce white light, are named **complementaries**. Every color has a complementary. Some of the principal pairs are shown in Fig. 12.¹ The colors represented at opposite ends of each diameter are complementaries, as red and blue-green, green and purple. Black and white, though not shown in the diagram, should also be regarded as a complementary pair.

Color Contrast. When the eye has been directed for some seconds upon a colored surface, say a red disk against a gray ground, and the disk is then removed, letting the eye rest on the gray background, the color complementary to the original will be observed. This is an after-image or an image of successive contrast. When the eye rests on a colored disk against gray for several seconds and the disk is not removed, the observer will notice that the complementary color begins to appear around the edge of the disk, as if spilling out from under it. This is simultaneous contrast. These facts mean that when a stimulation of the retina has lasted a certain time there is a complementary or compensatory process set up in the eye itself. The same sort of thing is true of grays; dark gray induces light images and light gray induces dark images. These processes, which appear so clearly under experimental conditions, are operating all the time, even when conditions tend somewhat to obscure them. Thus, if blue and green are set side by side, the blue tends to induce orange, but instead of seeing the orange we merely see the green modified in the direction of orange; the green, on the other hand, is working

¹ Fig. 48. Angell's Psychology, 1st ed.

to induce purple, but what we see is the adjacent blue modified in the direction of purple. When perfect complementaries are seen together each color intensifies the other. If, therefore, a painter wishes to give a special vividness to a color he is careful to introduce some touch of its complementary into its near neighborhood. The painting of Delacroix illustrates the conscious balancing of many complementary pairs.

One more contrast effect must be mentioned. When a color is seen with white, or with a gray lighter than the color itself, it looks dark, as we have indicated; when seen with a gray darker than itself, it looks light, and these apparent changes in the brightness of the color have also an effect upon the apparent hue. In a mixed color (and any color which is available for artistic work has some admixture of other hues) the lighter color component is emphasized by dark surroundings, and the darker component is emphasized by light surroundings. This is easily observed with orange, which looks yellowish orange when it is surrounded by black, but looks red-dish orange when surrounded by white.

Color Preferences. Several researches have been directed upon determining the relative agreeableness of different single colors. Grant Allen, who gathered reports from missionaries to many of the lower tribes, places the colors as follows in the order of preference: red (under which he includes yellow), blue, green. Baldwin, basing his judgment on the movements made by a child in reaching out for different colors, ranges them in this order: blue, red, white, green, brown (yellow was not included in the tests). Cohn found that yellow

with his subjects was a relatively unpopular color but this result is contested by Major and Baker and Puffer. Of colors of the same hue, but different saturation, Cohn's subjects preferred the more saturated. Among colors of about equal saturation the choice was purely individual except in the above-mentioned case of yellow. In some tests of mine, the subjects preferred the colors in this order on a dark background: red, yellow, green, blue; but in this order when seen on a light background: blue, red, green, yellow. None of these tests includes the color purple, which is said by some persons to be a favorite with children. It is not possible to draw a reliable conclusion from this amount of experimentation; at least nothing beyond the fact that blue and red stand pretty well, and that saturated colors are liked. We may add, however, that light itself if not extreme is highly agreeable. The fondness for gleam, glitter and luster is witness to it. It is probable that any hue may be made attractive by selecting the proper brightness, saturation, extent of surface, and color combination in which to present it.

The Character of Colors.¹ Each color tends to arouse

¹ An interesting article on "The Perceptive Problem in the Esthetic Appreciation of Single Colors," Bullough, Brit. Jour. of Psy., vol. 2, contains the following paragraph on the character of colors: "As regards the characters or temperaments of colors in general, it may be roughly stated that there appears to exist a kind of temperamental contrast between *red* and *blue*, or between colors containing red or blue. The character of a red or of a tone tinged with red is usually of a sympathetic, affectionate kind; it appears to come out to you with openness and frankness, while blues are of a more reserved, distant, even unaccessible temperament, somewhat like individuals described as 'difficult to know.' This temperament is not by any means repellent;

in a responsive observer a characteristic emotional tone which depends in part upon associational factors and in part upon the physiological reaction which the mere sensation of the color directly stimulates. The attempt has been made by Féré and others to estimate the stimulative power of colors by measuring the muscular force exerted by the subject when different colors were shown. No thoroughly satisfactory or convincing results have been shown, but with greater refinement of methods it is probable that characteristic differences in muscular condition might be disclosed. Lee and Thompson give some introspective evidence of physiological changes incident to color experiences. They write:¹ "Gay colors place the field of respiration high up, and somber colors place it low down; and the emotions accompanying these adjustments of the breathing are such that we designate the respective schemes of color as gay or as serious." Changes of heart-beat have also been noticed in connection with different colors.

Red. Red has been compared to the blare of a trumpet — loud and ringing. It is also known as one of the on the contrary it has an attraction of its own, by the promise of more thoughtfulness and greater depth than red in its expansiveness seems to offer. A similar opposition is to be noticed also in other respects: red is by far the most active color; blue, on the other hand, tends to contemplation and reflexion. Red exhibits degrees of energy which are sometimes almost overwhelming; it was once not inaptly described to me as 'gushing,' whereas in blue there is always some measure of coldness and distant state, which to some persons gives it an almost haughty appearance. While red is impressive by reason of its irresistible strength and power, blue has something monumental in its dignified repose and its peculiar spaciousness." The author characterizes also several other colors.

¹ "Beauty and Ugliness," *Contemp. Rev.*, 1897.

“warm” colors. Some clue to the emotional effect of a color is gained by a glance at the associations and the symbolism which have grown up around it. Red, the color of blood, is the symbol of passion and of death. Among the Chinese it is said to denote virtue and truth. With the ancient Romans the red flag was the battle signal. In the middle ages of Europe the candidate for knighthood was invested with a red garment in token of his readiness to shed his blood. In Christian art Christ and the Virgin are very generally represented as wearing a red tunic under the blue mantle. The symbolic use of red in modern art is illustrated in Rossetti: in “Dante’s Dream” the angel of love is all in scarlet, and scarlet poppies strew the floor; and in “Beata Beatrix” there is the scarlet dove. A distinction was made in religious art between different qualities of the same color, for example, a clear red denoted a pure feeling, but a muddy red was the hue of sin. In Abbey’s “Holy Grail” paintings the robe of Galahad is a clear red.

Yellow. The yellow of the spectrum is the brightest of all the spectral hues, and is allied to white in its effect. It, too, is a warm color. It is joyous and uplifting; in the orient a sacred color, a symbol of faith and of the sun. The Christian church, however, made yellow the color of dishonor, and in popular symbolism it stands for jealousy and decay. Pale yellow and gold are among the most adaptable colors, in the sense of making pleasant combinations with almost any other color.

Both red and yellow are usually spoken of as strong or exciting colors, though the type of excitement is not the same in both. The question was put to a class of

students in esthetics, whether they ever had motor associations with color. One of them wrote: "The two colors which have always presented motor qualities in a very marked way to my mind are red and yellow. Red suggests a hurried motion, directly forward, not confused or disorderly, but frequently accompanied by sounds. . . . Yellow has for me a whirling quality, as if the whole surface of the yellow object presented were filled with thousands of minute whirlpools of color particles that were in endless motion. For this reason yellow makes me dizzy if looked at for any length of time."¹ Another subject wrote that red suggested "an onward dashing movement. It is quick and stirring, but always steady and measured. . . . Yellow also gives motor associations which are quite different from those of red. The movement is still quick and spirited, but rather upward than onward. It is light and airy, seeming to float and curl."

Green. Green belongs to the cool end of the spectrum, and is less exciting than the reds and yellows. Grant Allen points out that green, among primitive peoples, is relatively unprized; he says that men in civilized communities, i.e., in cities have missed the green of the fields and woods and hence have come to the appreciation of it. In Christian symbolism it stands for hope and

¹ This subject is an interesting witness to the power which color has over some minds. She acted as subject in some laboratory tests in which the primary colors were used. After observing these colors for a short time she became so dizzy that we stopped the tests. She felt as if something were "pressing down" on her head, and the effect of it did not wear off for about an hour. She said that she had often felt this effect of bright colors.

inspiration. We connect it also with springtime and with growing things.

Blue. Blue is generally felt to be cool and calm, and to be suggestive of stillness and of depth. Ruskin writes as follows:¹ "Wherever Turner gives blue, there he gives atmosphere; it is air, not object. Blue he gives to his sea; so does nature: blue he gives, sapphire-deep, to his extreme distance; so does nature: blue he gives to the misty shadows and hollows of his hills . . . but blue he gives *not*, where detailed and illumined surfaces are visible." Lafcadio Hearn writes similarly, and says² that blue appeals to our ideas of "Altitude, of Vastness and of Profundity," and that it is the "tint of distance and of vagueness." And again: "Vivid blue, unlike other bright colors, is never associated in our experience of nature with large and opaque *solidity*."

Blue tones, then, since they are enveloping, atmospheric and spacious, should be proper for the decoration of backgrounds, of walls and ceilings. The beautiful fitness of Puvis de Chavannes's mural paintings is due in part to their soft prevailing blues. Blue in Christian art and in popular symbolism is the color for constancy.

White, Gray and Black. White stimulates a joyful but serene mood. It is the symbolic color of joy and of purity. Gray is of all colors the most sober, quiet and subtle. A laboratory subject, whose task was to look at a large sheet of gray paper and to record her impression of the color experience, wrote as follows: "Visually a pure gray, it gives the impression of softness and depth."

¹ "Modern Painters," I.

² "Exotics and Retrospectives : Azure Psychology."

I seem to hear its very quietness. Its gentleness of gradation and of shading suggests grace, facility, expertness. I smiled at noticing the transition (i.e., from the darker to the lighter parts of the surface). The whole experience is one of neatness, delicacy and refinement, which ideas induce a bodily feeling of reverence or of deference." Poetically we find gray referred to as a "chastened tinge" or as "ashen and sober." Black, by itself, is melancholy and depressing; it is the symbol, among western peoples, of grief and death. It stands also for guilt. In combination with other colors, particularly when it is limited in extent, black makes the impression of great concentration and strength. No other color has more "character" than black.

Color Combinations. Complementary colors are sometimes said to be agreeable in combination, but careful experiments show that colors which are not quite complementary to one another are preferred as combinations. Baker writes:¹ "Our results show a slight but decided preference for the 'warm' side of the manifoldness of color. The 'center of gravity' of the combinations seems always to be not in the middle point of the color circle but somewhere towards the side of the purple, red, orange and yellow." Her results hold for saturated colors. She finds that yellows are good combining colors, i.e. are frequently chosen in combination with other colors. The harmonizing quality of gold has long been recognized in practice. In decorative design it often appears that discordant colors can be reconciled by joining their edges with a band of gold. The gold

¹ Toronto Studies, I.

backgrounds of Byzantine pictures and the russet backgrounds of Murillo illustrate the fact that yellow tones make an acceptable setting for other colors. Combinations of colors with white or gray or black are often pleasant, though the colors which go best with other colors combine less well with grays. Chown writes:¹ "Thus it seems to be established that *the greater the possibility for a certain color to please in combination with other colors, the less likely is it to please in combination with gray.*" Tests have been made by Barber on combinations of colors with tints and shades. He finds that the colors at the violet end of the spectrum harmonize well with their own tints, but that tints of the warm colors, excepting yellow, harmonize best with other colors. The colors which agree best with their own shades are orange and yellow. The most agreeable combinations, according to Kirschman's formula, are those which exhibit three kinds of contrast effect, namely, contrast of hue, of brightness and of saturation.

The actual practice of painters shows two general schemes of procedure in combining colors. According to one plan there should be one prevailing hue, and variation should be introduced by changes in saturation and brightness, and by limited changes in hue. A picture in which blue prevailed would contain light blues and dark blues, saturated blues and unsaturated, green-blues and red-blues. There might be touches of contrasted color, but not enough to interfere with the impression of a single governing hue. This is the "dominant" method. The other method, called the contrasted,

¹ Toronto Studies, II.

would show, perhaps, two key-colors, whose tints and shades would weave together; or, according to some, a contrasted scheme must represent the three colors, red, blue and yellow. It would be impossible to say that one of these methods is right and the other wrong, since both are beautiful, though they are suited to different purposes. The dominant style is more uniform in tone and more gradual in its transitions; hence rather more subdued, whereas the contrasted is more brilliant and vivacious.

Color Blending. One way of mixing two colors to get an intermediate tone is to stir the two together before putting them on the canvas; another way is to paint one directly over the other. Still another way is to put the two colors on separately, so that tiny spots of one are all interlaced with tiny spots of the other. If black and white are the colors to be so treated, they will make the canvas look, at close range, like a patchwork of little black and white daubs. At a very far range the surface will look a pure, even gray. But at a proper distance between too far and too near, the black and white will give a gray uncommonly clear, transparent and glimmering. If red and blue dots are arranged in the same way, the result will be a purple of unusual vividness. A more brilliant and transparent color effect can be obtained by this impressionistic method of blending than by the ordinary direct mixture of pigments on a palette. The blending, of course, takes place on the retina; we know that it is impossible for the eye to be kept steadily in one position, and at the slightest shift, when one is looking at a surface of closely alternating colors, the point

on the retina which was being stimulated by one color will be in position to get the other. Retinal blending is easiest when the eye is slightly out of focus for the colored surface, since in this case the images of the separate dots overlap on the retina. In stained glass this retinal blending gives particularly beautiful effects; patches of red and yellow produce a glowing orange, and pieces of red and blue a shimmer of purple, elusive beauties which disappear as we come nearer.

Color Balance. When two masses of color exactly alike in every way — hue, brightness, saturation, size, shape — occupy symmetrical positions on either side of a picture or design they are said to balance. In this figurative conception of balance the center of the picture is regarded as a fulcrum, and the horizontal distances out from the center are the two arms of the lever. We know that, in maintaining a literal physical balance, if we shorten the arm of a lever on one side we must increase the weight on that side, but that if we lengthen the arm we must diminish the weight. The same thing is true of the apparent balance between color masses. A small patch of color far out from the center balances a large mass close up to the center. A more complex problem presents itself when the two opposed colors are no longer of the same quality; when, for instance, blue must be balanced with orange, or yellow with green. Experiments show that (on a dark background) a small mass of bright color seems to balance a large mass of dull color.¹ If, then, we had a bright and

¹ Pierce and Puffer.

a dark mass of equal size, the bright mass should be put on the shorter lever arm, that is, nearer the center of the picture, since its extra weight must be offset by short leverage. The greater "weight" of bright colors may be explained in part by the fact that we tend to overestimate the size of surfaces colored in bright reds and yellows, but to underestimate surfaces colored in greens and blues. This would not, however, explain the "weight" of dark masses on a light background, and in any case the overestimation of bright masses is not enough to account fully for their weight. On a light background, as we have just intimated, the more a color approaches black the greater its weight or value, although, so far as the writer knows, exact experiments have not been made with light backgrounds.

Values. This is the artist's term for relationships of light and dark. In black and white work, i.e., with pen and ink, charcoal, etc., where black strokes are put on a white ground, the highest value is said to be the strongest black. In pigments the use is reversed, and that tone is said to have most value which has most white in it, that is, value would here be the same as brightness. This is the usage of the term as given by Professor Van Dyke, but according to this the highest value would not always be the same as the tone of strongest contrast or interest; for, if a painting were all keyed in a pale color, the high lights would not be so striking as some touch of strong black might be.

It will be remembered that science recognizes three variations of color, apart from shape and size — hue, brightness and saturation. Artists use the term "tone"

to mean either hue or brightness; thus Batchelder defines it:¹ "Tone means the value (as dark, light); or the color (as red, green, blue)." Writers on art do not commonly use the term "saturation," nor are they always careful to distinguish the fact from the fact of brightness or value.

Qualitative Balance of Colors. In speaking above of balance of color, we made use of the conception of a physical balance of masses; one quantity was weighed against another. It is true that the quality of the colors was considered, but their effect was translated into the quantitative conception of weight. The term "balance" is also used in a more strictly qualitative sense. Ross says of tone:² "Tones, simply as tones, disregarding the positions, measures, and shapes which may be given to them, balance, when the contrasts which they make with the ground-tone upon which they are placed are equal." When a composition contains three or more hues (or brightnesses, or saturations), then a balance becomes possible. In a design of white, gray and black the brightnesses balance when the gray is as much darker than the white as the black is darker than the gray. The hues of yellow, greenish-yellow and orange-yellow would balance if the greenish- and the orange-yellows were removed by equal degrees from pure yellow. It is proper also to speak of a balance of saturations when two tones vary by equal degrees of saturation from a ground tone.

Advancing and Retreating Arrangements. Colors are capable of suggesting, in some arrangements, the

¹ "The Principles of Design." ² "A Theory of Pure Design."

third dimension in space. Fig. 13 represents at the left an advancing, and at the right a retreating arrangement of colors. With the brightest color in the center we have a cone with its top standing out toward the reader; whereas with the darkest color in the center the cone seems to go backward into the distance. Ashley performed tests in which subjects were asked to judge of the relative distance of an object which they were informed would

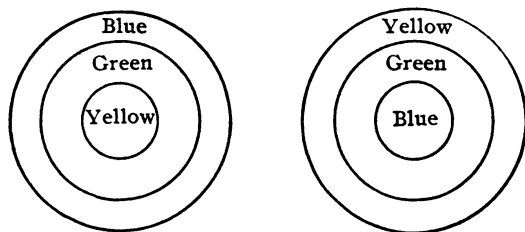


FIG. 13.

be moved toward and away from the eye. The experimenter was able to regulate at will the amount of light thrown upon the object. He found that when the illumination was increased the subjects said that the object was near; when it was lessened they said the object was further off; but in fact the object was never moved at all. This shows that brightness and nearness are felt to belong together, — that brightness is taken as some guarantee of nearness. Painters use sometimes the advancing, sometimes the retreating scheme on their canvases, but on the whole it is more usual practice to have a center of light from which the brightnesses diminish toward the other parts of the picture. In un-

published tests by the writer the primary colors — red, green, blue and yellow — were combined in certain arrangements so that a design with bright masses near the center and dark ones toward the periphery was compared with one having the reverse order. On the whole, the bright colors were preferred in the center. As between red and green, however, there was a tendency to prefer red in the center, although in these tests the red used was darker than the green.

Color in Design and in Representative Painting. A painter who represents objects, whether human figures, still life or landscape, finds that his use of color is much limited by form, and particularly by perspective in his object. A face painted all flesh-color, or a tree all green, would be odd productions. What we call the color of flesh or of grass or of the sky is really a typical color which we have abstracted from a great many different views of faces, or grasses or skies. The first time a person tries to paint these things he paints them in these "generic" colors. He is seeing in terms of his stock of concepts, not in terms of his present retinal stimulation. What the artist does is to suggest the "right" color by putting on others that the average observer does not see at all. For "flesh-color" the painter mixes a palette of reds, greens, blues, yellows, purples and grays. It is evident, therefore, that there is a wide discrepancy in representative painting between the color which is put on the canvas and that which is suggested to the observer. The necessity for gradation robs the painter of fullness of color. Ruskin says:¹ "It does not matter how small the

¹ "The Elements of Drawing."

touch of color may be, though not larger than the smallest pin's head, if one part of it is not darker than the rest, it is a bad touch."

The case of the decorative designer is quite different; he is not representing color, but is presenting it. As Rood says:¹ "An ornamented surface is essentially not a representation of a beautiful absent object, but is the beautiful object itself." It is very proper for the decorator to use all the pure color he wants to. He may, if he pleases, use flat ungraded washes; he need not attend to perspective, and he may distort and conventionalize his forms almost without limit, provided his ultimate purpose is fulfilled, of making an intrinsically beautiful arrangement of colors. Red forget-me-nots and blue roses are proper if, in the artist's design, they are needed. Design, then, is the field in which color for its own sake finds freest recognition, while in representative painting the colors used are sometimes little more than symbols of the colors which are meant.

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CHAPTER IX

THE CHARACTER OF SIMPLE LINES AND FORMS

MATHEMATICALLY a line has no substance or quality, only length and direction; but for artistic purposes it may have a more substantial status, and its quality becomes an important branch of study. In sketching, the quality of a line — as broad or narrow, dark or light, rough or smooth—may be made to indicate the texture of the object portrayed. A fine gray line gives delicacy of texture, a fine black line, precision and hardness. Broad rough lines may denote homeliness and solidity; they are appropriate, for example, in genre sketches where the coarse dress and wooden shoes of peasants, or where a thatched cottage or barnyard fence appears. Broad black lines have a character of distinctness and independence, etc.

Of greater importance than the quality of line is the direction of line and its character, as straight or curved. The principal point to be brought out in the following paragraphs is that even the most simple abstract line, no matter how free it appears from the representation of any specific thing, may have an emotional effect and meaning of its own.

Vertical Lines. "Straightness" and "uprightness" have come to be synonyms for moral reliability. The explanation of this fact, and of the feeling tone which is aroused by vertical lines, depends in part upon ideational asso-

ciations, and in part upon the motor reactions which the view of such lines directly stimulates. Among the ideational elements connected with upright lines are the images of towers and pillars. The tower was formerly a stronghold and position of advantage in time of war, and the pillar was the most obvious feature of support in architectural construction; hence the tower and pillar came to be symbols or metaphors for strength and trustworthiness. Again there is a conventional connection between the erect attitude of the human figure and the consciousness of courage and worth. Sometimes the association of vertical lines with the human form suggests the attenuated frame of the ascetic, or else the tense containment of the athlete drawn up for action. Another important association with the vertical is found in religious worship; for here there is nearly always a spatial relationship implied between the god and the worshiper. The gods are usually thought of as dwelling above, and the worshiper literally "looks up" to them. Thus the mood of reverence and of spiritual "exaltation" is connected with an upward line.¹ These reflections suggest a few of the associations which go to determine our feeling for the vertical. As for the direct motor response to a vertical line, it consists in the movement of the eyes up and down and in the imitative tendency of the whole body by which we perform incipiently the act of drawing ourselves up into a tall narrow form. This is normally an attitude of attention, but, though rigorous, it is neither unbalanced nor awkward. The feeling of this bodily attitude determines, or rather is,

¹ Cf. a quotation from Puffer on p. 166.

our feeling for the line itself. In a later paragraph we shall mention some of the theories which are based on experiences like this.

There is a severe controlled grace in certain upright lines, which to some tastes may be more pleasing than the grace of curves. It is true that the lavish use of verticals would give stiffness to an artist's style, but their judicious employment gives firmness, simplicity and life. In architecture the great verticals of Giotto's tower come to mind. Among statues the one of "Teucer" drawing his bow is one of the most rigorously vertical. In painting Böcklin has given great dignity and distinction to his "Toteninsel" by the use of the long vertical lines. Burne-Jones often gets from verticals an architectural effect and an ascetic tone in his pictures.

Horizontal Lines. The horizontal is the line of quiescence and repose, the suggestion of lying down, and the consequent suggestion of quiet and of relaxation being particularly strong. The horizon of the sea and of the plains brings always the thought of distance. Long stretches of level ground bring to us, in some moods, a sense of the patience and lowliness of the earth. This last is a case of pathetic fallacy, but pathetic fallacy may help us to know our own emotions in the presence of the phenomena of nature. There is, in addition to these ideational elements, something hypnotic in a long monotony of level line. There is nothing in it to lead the eye upward or down, nothing to vary what seems the easiest of all eye-movements, the sliding from side to side. The spell of such lines is powerfully illustrated in some of Burne-Jones's pictures. In the "Sleeping Beauty" series

there are long horizontals in the pavement of the foreground, the hangings of the background, in the princess's couch and the king's dais; then, too, the reclining figures, though their lines are varied to make rhythmic undulations across the picture (the series was designed to be a frieze) all form a broad horizontal sweep, and the effect of magic slumber is complete. In his picture called "The Wine of Circe," there is also a striking predominance of the horizontal. The outline of the whole picture is a low oblong. The posture of the tall Circe bent low and reaching out her arm, and the backs of the animals, the lines of the long table, and the low casement through which is visible the sea-horizon, all these contribute to the sense of irresistible languor and drowsy enchantment.

Diagonal Lines. Diagonals are the lines of action; for attention cannot rest upon them, but sweeps down and up. We know that many kinds of hard labor throw the body into oblique lines—such work as running, rowing, chopping wood, dragging a weight will do it,—and these memories are dimly present as we look at a diagonal

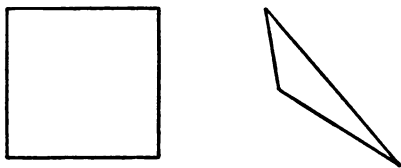


FIG. 14.

line. Then, too, such a line appears unstable in itself, or rather we tend to lose balance if we try very vigorously to imitate the line. The oblique thus lacks the security of the horizontal, or even of the vertical, and it resembles

the arm of a balance when the weights are unequal. In Fig. 14 we feel that the square resting on its side is

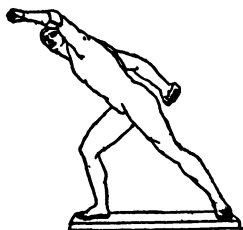


FIG. 15.

solid and passive as compared with the triangle which suggests activity or motion. The diagonal by itself is too precarious in its position to be fully satisfactory. In a work of art the active character of the diagonal may be preserved and its want of balance compensated by other factors. In the figure (Fig. 15) of the "Borghese Warrior"

the striking oblique is rendered firm by the compensating position of the right leg and right arm.

In figure painting it is a common practice to get motion by representing a person stepping forward in an oblique pose, and with a backward slant of fluttering drapery. It is also possible to indicate motion without assuming the figure to be actually moving. One good example is the frieze in the Pittsburg museum, where Alexander has depicted a number of work episodes.



FIG. 16.

Much of the sense of action in these pictures comes from the long slant lines of steel beams, and of shafts of light from the fires. Another example is Rodin's "Flight of Love" (Fig. 16). In this, although the woman is sitting, and in thought, the springing diagonal

lines give wonderfully the feeling of departure. Puffer, in an interesting study of old masters, points out that oblique lines are used, a "V-shaped" type of composition, to give animation to pictures which without this would be too repressed and still.

Having said something of the character of the three chief types of straight lines, we shall be occupied in the next few paragraphs with some of the simplest forms, or combinations of straight lines.

The Stripe. A pattern composed merely of stripes or bars running all in one direction is one of the simplest as well as one of the strongest forms of composition. Ruskin thinks it appropriate as a color arrangement; for he believes that the full glory of color comes out only when we have it in simple masses, "zones, cloudings and flamings." In some churches of Spain and Italy the outside surface is sometimes broken into alternating



FIG. 17.

layers, or horizontal bars of black and white, or pink and white as in Florence. Color composition by bars is available not only in architecture, but in painting as well. A general color scheme need not be determined by the grouping of the figures portrayed, but may fall into bars, circles, or what not, as the artist chooses. Whistler's painting of a ship¹ is an illustration of arrangement in

¹ Reproduced in color in Menpes: "Whistler as I knew Him."

horizontal bands, in this case an alternation of black and yellow. Great variety may be introduced into the character of striped patterns by changing the width and clustering of the lines. Fig. 17 shows three of the many possibilities.

Triangle, Pyramid, and Vista. The triangle is the simplest of all enclosed forms. Its diagonal lines and sharp corners give it an active, vivacious and incisive character. Fig. 18 shows a use of repeated triangles, often seen in rugs, where they give spirit to the surface which they cover.

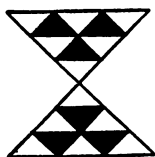


FIG. 18.

An isosceles triangle resting on its base represents a symmetrical balance of active lines. The sides converging to the apex draw our attention in that direction and give us a feeling of unified activity. The use of triangular form in art is exemplified first of all in architecture, notably in pyramids and the pediments of temples. In painting and design it is recognized as a principle of unity. The vista in landscape, as Puffer says, serves to concentrate attention and to hold together those parts of the picture which are associated in the vista. Her discussion brings out also that in religious pictures, particularly altar-pieces representing the Madonna enthroned, the composition approaches a pyramid or triangle in form, the Madonna's head being often at the apex of the pyramid.¹ "The contrast," she writes, "between the broad base and the apex gives a feeling of solidity, of repose; and it seems not unreasonable to suppose that the tendency to rest the eyes above the center of the picture directly induces the

¹ "Psychology of Beauty," ch. 4.

associated mood of reverence or worship. Thus the pyramidal form serves two ends; primarily that of giving unity, and secondarily, by the peculiarity of its shape, that of inducing the feeling-tone appropriate to the subject of the picture."

The Square. A square resting on its side conveys the impression of solidity and strength. It is plain and sturdy. It is really a less concentrated form than the circle, or than the regular polygons, but the straightness of its lines and the practical simplicity of its construction make it seem a more primitive and rugged thing. The repeating square or chequer is one of the oldest and commonest of ornamental forms. It is probably derived from textile operations as in Fig. 19. The repeating square is the basis of all plaid designs, and when differences in the color, width, and grouping of the crossing strands are introduced, it is capable of yielding many attractive variations. Important figures allied to the square are the fret or key pattern usually associated with Greek borders; the latch-hook, found frequently in eastern rugs, and the swastika. The square in pictorial composition makes a less unified grouping than the triangle, but we shall see that in sculpture and in architecture the square and the cube are important forms.



FIG. 19.

Oblongs. Oblongs are familiar as the outlines of windows, doors, picture-frames, books, panels, rugs, etc., etc. They may vary in proportion all the way from the square to the long, thin rectangle which is almost a stripe

or mere line. Some of these figures strike us as more agreeable in proportion than others, and it would be a matter of interest to know whether any one is more attractive than all the rest, and if so which it is. This question has a significant place in the history of esthetics; for it was the first problem to receive a systematic experimental treatment. Zeising, in the middle of the last century, maintained that the "golden section" was the most beautiful of all proportions. He saw in it the most perfect expression of unity in variety, and tried to apply it very widely as a criterion to natural and artistic forms. The golden section is such a division of a whole that the smaller part is to the larger as the larger part is to the whole, $a:b::b:(a+b)$ or approximately 5:8. Fechner made experiments with sets of figures in order to test the attractiveness of this golden ratio. In one kind of test he offered for comparison ten rectangles of different proportions. His figures were cut in these ratios:

$1/1$; $6/5$; $5/4$; $4/3$; $29/20$; $3/2$; $34/21$; $23/13$; $2/1$; $5/2$.

These figures were spread out in haphazard order and the observers were asked to select the best and the worst of them. The proportion $34/21$, the golden section, was chosen oftenest as best, $3/2$ and $23/13$ coming next. The least agreeable proved to be $6/5$. It should be added that the best proportion for oblongs did not prove to be the best for certain other simple figures which Fechner tried.

In concrete works of art the golden section is not always the most agreeable proportion even for rectangles, since the effect of the rectangle is greatly modified by

attendant figures and by the purpose which it serves in the design as a whole.

Curves. Sully, who speaks of the horizontal line as "peaceful" and the vertical as "ambitious," calls the curved line "voluptuous." Curves are in general felt to be more beautiful than straight lines. They are more graceful and pliable, and avoid the harshness of some straight lines. An undulating horizontal has less of repression than the perfectly level line, and an upward sweep that is slightly curved is less severe and stiff than the literal perpendicular. Out of the multitude of pleasing curves only a few striking ones can be discussed here.

Circle and Arc. The circle is a symbol of completeness, and it makes the impression of fullness and finality. For this reason it is not easy to manage as an element in an artistic composition. Ruskin thinks it the least beautiful of curves. Curves which lead on and weave into something else are more available than a curve which only returns on itself. In Burne-Jones's "Days of Creation" the circle of the world, in almost perfect outline, occupies the center of attention in the design, but not with particularly good effect. This unbroken curve is too exclusive, and will not yield anything to other lines. But though the perfect circle is not very manageable in the midst of a design, it makes a favorable boundary or governing line. Botticelli regarded the tondo as the perfect form for a picture, and in some of his work the circle thoroughly modifies the composition. The "circular" type of pictorial composition is one in which the grouping, as a whole, roughly approximates a circle (and so gains in

unity), but the actual lines of the figures are far from being literally circular.

The arc or crescent line hints of the completeness, but not of the hard, firm perfectness of the circle. In architecture the arched line is oftenest used as the upper limit of vision. The arch makes an agreeable finish for the space enclosed in the interior of a building, while from the outside, the arching line of a dome seems to complete the structure in a satisfying way. The pointed arch partakes of the effect of the round arch and of the triangle, having something of the fullness and finish of the round arch, but yet pointing upward and suggesting religious aspiration. It is one of the characteristic beauties of Gothic art.

Important forms allied to the circle are spiral and radiating figures. Of these the spiral shows greater concentration, but the radiating form greater freedom. Crane says:¹ "If there can be said to be one principle more than another, the perception and expression of which gives to an artist's work in design peculiar vitality, it is this principle of radiating line."

The Serpentine Line. Hogarth said that the most perfect "line of grace" was the serpentine or wavy line, something like a letter S. The variety of direction, he justly thought, was an element of importance in its beauty. Attempts have been made to explain our liking for this type of line, to show why a curve like Fig. 20 a is more agreeable than 20 b. The explanation formerly accepted was this; that the eye in following the first line must travel in a smooth continuous manner, whereas in follow-

¹ "Line and Form."

ing the second it would have to proceed in jerky installments, and that the feeling of the first type of movement was more agreeable. The ease of eye-movement was made the basis of our pleasure. Experiments have been made by Stratton, however, which discredit this theory. He recorded on a photographic plate the eye-movements of subjects as they looked along a smooth serpentine curve, and his results show that these eye-movements are

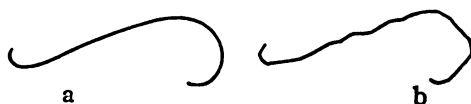


FIG. 20. (AFTER STRATTON.)

not at all smooth and continuous in their character; in fact they do not differ essentially from the movements made in following the ugly broken line. This tends to prove that the feeling of eye-movement cannot be the ground of the esthetic judgment. It may also be remarked that we are capable of observing curves and passing judgment on them without appreciably moving the eyes at all. Now, although we cannot assume eye-movement as the source of our pleasure, it is still possible to maintain that the curve suggests smooth and easy movement in other parts of the body. We are able to move hands, wrists, head and feet, at least, in serpentine lines, and to experience the greater ease and pleasure, as well as the greater economy and power of these movements. It seems fair to assume that the memory of these movements, and perhaps some actual half-conscious movements like them, may be the basis of our esthetic appreciation of the serpentine line.

Among the formal traditional patterns which show the wavy line are the "river-loop" or "pear" pattern common in Persian carpets, the ogee arch, the conventional wave, the flame, the guilloche, the Greek vase (Fig. 21).

Connection with General Theory. In the preceding pages the student will have noticed the frequent reference to the movements which an observer makes while attending to visual objects. In looking at these objects we tend to throw ourselves into attitudes or gestures

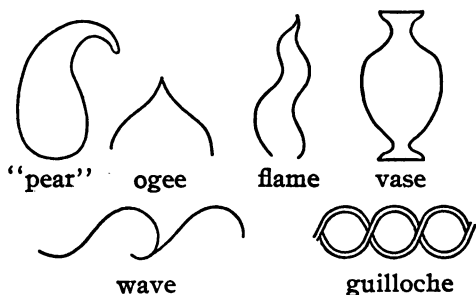


FIG. 21.

which in a sense imitate or reproduce the objects. This tendency has been called "sympathetic reproduction" or "inner imitation" by Groos, a "feeling oneself into" the object by Lipps, and has been assumed as the basis of our esthetic appreciation of the object. We have mentioned above only the movements by which one responds to the simplest lines, but in order to appreciate the justice of the theory we should have in mind some account of the attitude assumed towards a more complex visual object. An excellent example is the following

introspective record by Lee and Thompson¹ on observing a symmetrical jar.

"Looking at this jar one has a specific sense of a *whole*. One's bodily sensations are extraordinarily composed, balanced, co-related in their diversity. To begin with, the feet press on the ground while the eyes fix the base of the jar. Then one accompanies the *lift up*, so to speak, of the body of the jar by a *lift up* of one's own body; and one accompanies by a slight sense of downward pressure of the head the downward pressure of the widened rim on the jar's top. Meanwhile the jar's equal sides bring both lungs into equal play; the curve outwards of the jar's two sides is simultaneously followed by an *inspiration* as the eyes move up to the jar's widest point. Then *expiration* begins, and the lungs seem slowly to collapse as the curve inward is followed by the eyes, till, the narrow part of the neck being reached, the ocular following of the widened out top provokes a short inspiration. Moreover, the shape of the jar provokes movements of balance, the left curve a shifting on to the left foot, and *vice versa*. A complete and equally distributed set of bodily adjustments has accompanied the ocular sight of the jar; this *totality* of movements and *harmony* of movements in ourselves answers to the intellectual fact of finding that the jar is a *harmonious whole*."

Possible - but not 100%

This account is strictly in accord with the James theory of emotion, since there is first the sensory stimulus, then the instinctive bodily reaction, the "feel" of this reaction being the esthetic "feel" for the object. It illustrates also the point in Dewey's theory that there

¹ Op. cit.

must be conflict or diversity of impulses; for the two sides of the balance stimulate movements in contrary directions, and without these elements of diversity, we could have nothing approaching emotional excitement.

In addition to such introspective studies as that just quoted, it would be a matter of the greatest interest to have records of these physiological reactions taken under laboratory conditions. Photographing eye-movements is an important means which might be extended to a comparative study of the movements involved in watching or thinking of different figures, though the results thus far have been rather negative. Involuntary movements of various parts of the body, and of the body as a whole, are capable of record, and should throw light on the problem. Jastrow has made many studies of involuntary movements, and his results show that a person who thinks of a given object, whether the object is present to sense or is only imagined, makes movements in the direction, or the imagined direction, of the object. Even while trying to remain perfectly still the subject will move his hand, head or whole body in the direction of the thing which holds his attention. Jastrow writes of one test:¹ "As the metronome, the strokes of which the subject was counting, was carried from one corner of the room to another and so on around the room, the hand involuntarily followed it and recorded an almost perfect square." One would expect from this to find characteristic involuntary movements, perhaps unconscious movements, accompanying verticals, horizontals, spirals, etc. In addition to such studies of movement one could investi-

¹ "Fact and Fable in Psychology."

gate the different types and rates of breathing and of heart-beat which possibly accompany the contemplation of different lines and figures.

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CHAPTER X

SOME PRINCIPLES OF DESIGN

Definition. "By Design," says Ross,¹ "I mean Order in human feeling and thought and in the many and varied activities by which that feeling or that thought is expressed." Batchelder adds:² "Good designs are invariably sane, regular, orderly, consistent throughout." A design, we may say, in any field of art is the expression of purpose; it is material modified to suit an idea. There is always present in such a work of art some trace of humanly imposed order or law. Creative imagination, as we know, consists in seeing connections and emphasizing likenesses between different things. So in design we have something—our material—which we make into the likeness of something else—our idea. If we take three flowers, and do no more than set them in order to suit our idea of a triangle, we have made a design.

What decorative design means is most easily understood by seeing it contrasted with realistic portrayal on the one hand, and grotesque exaggeration on the other. The materials for design in arts appealing to the eye are derived ultimately from the visible creation, from human, animal and vegetable forms, and inanimate formations. If, in dealing with this material, the artist faithfully copies off some of it, with the minimum of mod-

¹ "A Theory of Pure Design."

² "The Principles of Design."

ifying idea in his mind, we call his product realistic. If, however, the artist orders or harmonizes his material with some idea, if he poses his material in some suitable but special manner, we call his product a decorative treatment. If, finally, the artist becomes despotic and excessive in imposing his idea upon the material, if his



FIG. 22.

idea appears to do violence to the natural form, we call his product fantastic or grotesque. Any of these three methods of handling material may produce beautiful results, or they may produce ugly results, but the chances of producing beauty are, on the whole, with the middle, or decorative way. Realism and the grotesque are extremes; one is the extreme of nature, and the other the extreme of human caprice. Figs. 22¹ and 23² illustrate two methods of modifying bird forms, the former a legitimate decorative treatment, the latter an exaggerated and grotesque treatment.



Fig. 23.

The Realistic or Graphic Interest is Primary. According to recent writers of anthropology, primitive art was at first, or was at least intended to be, realistic. In the

¹ From Walter Crane's "Line and Form."

² From Aubrey Beardsley. Illustrations for "Morte d'Arthur."

savage period the artist was interested in representing, for various purposes, human and animal forms. Simple lines, as such, did not interest him. Many of the so-called "geometrical" designs of primitive tribes to-day have, in fact, as we are told, a representative value, or a specific meaning for those tribes. Such abstract or symbolic representations of living forms, can, in some cases, be traced as the result of a gradual wearing down process. This eliminating process is partly a labor-saving device, and partly an artistic one. Fig. 24¹ illustrates the

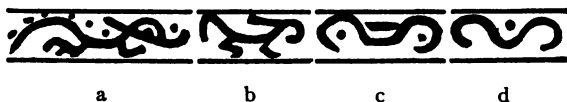


FIG. 24. Series of figures of alligators showing stages of simplification.

steps in one such process; seeing the picture only in its last stage of development one would scarcely imagine that it had a graphic origin. The taste for abstract lines and simple forms for their own sake, or rather for their immediate esthetic effect, is, then, a later growth than the taste for lines because of their representative or mediate value.

In the mind of the oriental the interest in representative value still persists even with his most decorative and conventional work. Concerning the symbolic intention of the designer of oriental carpets Birdwood says:² "Whatever their type of ornamentation may be, a deep and complicate symbolism . . . pervades every denomination of oriental carpets. Thus the carpet itself pre-

¹ Prof. Holmes in 6th Annual Report of the Bureau of Ethnology, Fig. 277. Reproduced in Wilson's "The Swastika."

² Quoted in Mumford: "Oriental Rugs."

figures space and eternity, and the general pattern or filling, as it is technically termed, the fleeting finite universe of animated beauty. Every color used has its significance, and the design, whether mythological or natural, human, bestial or floral, has its hidden meaning."

As distinct from such an attitude towards art, the conviction of the modern western mind is that the true meaning of a work of art lies in its face value, in what it is able to do to the beholder, not in any secret dream or hidden meaning of the designer. An interest in the graphic or representative character of a picture is something of a backward reference, that is, it harks back strongly to that *from* which the picture comes. The esthetic attitude for us is rather an interest in the present sense content, an interest in what the picture now is, and also in what it is able to stimulate or suggest. This stimulative quality is a reference really to the future. But it is an emotional, not an intellectual, reference.

The artist, when he has become freed from the purely graphic purpose in art finds that he has lost something in the way of definite guidance. When he throws away the principle of literal reproduction he finds that he must adopt other principles in its place. A body of tradition has grown up to be a guide to composition, and although no one can guarantee that its rules will always produce beauty, it is not hard to show that they may do it and often have done it. Some of the elements of good design are discussed in the following paragraphs.

Repetition. Oftentimes a line or figure which is insignificant in itself may be intensified, backed up, or "justified" by being repeated. An instance of the

agreeable effect of repetition was found in the experiment to be described on p. 184. The circles used in that test formed a series in which the same element was repeated, but in a gradually increasing size. Now it appeared that when two, three, or four circles were shown in a row the pleasure which the subjects experienced was pretty slight, they saw little "sense" in the experiment. But when there were nine or ten shown in a row the esthetic value of the whole was materially heightened. Witmer also found, in his tests, that when a figure belongs to a series the subject no longer asks for the meaning of the figures; the fact that it is the member of a series seems to be meaning enough. The psychological explanation of these facts is to be found in the law of habit. Whatever is habitual, or in accord with an established order is taken as a matter of course; the familiar has a feeling of meaning about it and seems to require no further significance.

Rowland has made experiments on repeated space forms, using chiefly vertical lines in various groupings.

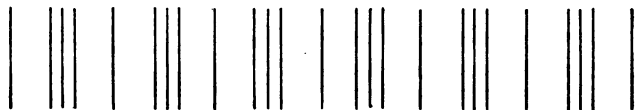


FIG. 25.

She finds that in a repeating series there is always a major element which is iterated, forming a major series, and a minor element which is repeated and forms an alternate or "filling" for the major series. For example, in Fig. 25 the three-stringed repeat constitutes the

major series, and the one-stringed repeat is the minor or alternate. If there were no single strings in this figure, the alternate series would be constituted by the spacing between the other elements. The experimenter says that variation may be introduced into the individual elements of the major series without destroying the effect of a repeating series, but that the whole experience is disturbed if changes are made in the elements of the alternate series. (We can readily understand that in a row of statues it would be agreeable to have the figures themselves different from one another, but not agreeable to have the spacing irregular.) A visual series, this experimenter reports, is felt to have a rhythm, and this feeling is immediate, that is, it does not depend upon the knowledge that certain objects do recur regularly. The analogy between auditory and visual rhythm is very strong. (Some writers use the term "rhythm" in a more limited sense for visual objects and would not admit that the series used by Rowland were properly rhythmical. We shall come back to this point again.) Relative to the pleasure aroused by repetition she says:¹ "The series excites a certain response in the observer, which, if it corresponds with his rhythmic organization, is pleasant, and if not, is otherwise. With a certain class of subjects this rhythmic response is very noticeable, and they feel it as a conscious part of the experience. With others, the symmetrical properties of the series are the more prominent. . . ."

Repetition in its strict form is the very foundation of pattern making, a pattern being technically known as

¹ "The Esthetics of Repeated Space Forms."

a "repeat." When introduced into representative art repetition must be somewhat disguised. The Parthenon frieze shows constant repetition of the human figure, but with ever varying pose and character. A more rigid type of repetition may be used in pictures in a subordinate way, as in a string of beads, an embroidered pattern, or the fluting of a half hidden column.

Rhythm. Rhythm in spatial terms means such an arrangement or repetition of form that movement in a particular direction and by regular steps is suggested. Ross says:¹ "In any space-rhythm . . . the direction in which the rhythm leads us, the direction in which we



FIG. 26.



FIG. 27.

follow it, must be unmistakable." According to this limitation a line like Fig. 26, which is equivocal in direction and can be read one way as well as another, is not strictly rhythmical; whereas a line like Fig. 27, which reads unmistakably from left to right, is rhythmical. Of course it is possible to turn the eyes from right to left in looking at such a figure, but anyone who feels the suggestion of the figure itself would, in all probability, follow it the other way. In Fig. 27 the element or motive by itself gives motion, and the design as a whole is but a repetition of it. It is possible, however, to get rhythm in a series whose units have no movement when taken separately. A series whose members show a gradual increase in complexity draws the eye toward the

¹ Op. cit.

direction of the most complicated figure (see Fig. 28). Also a series which diminishes in size or in interval as Fig. 29 and Fig. 30 may give a sense of movement in a determinate direction; the one on account of the converging lines which it generates, and the other on account of the concentration of features to one side. The vista



FIG. 28.

often combines the effect of 29 and 30 as in Fig. 31, hence its power of attracting the eye to its meeting point.

Rhythm in the sense of regulated movement in a determinate direction is not present in such figures as Rowland used in testing repetition (see Fig. 25). Never-



FIG. 29.

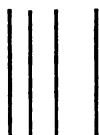


FIG. 30.



FIG. 31.

theless, her subjects actually felt in those series something analogous to auditory rhythm. Perhaps these two different usages of the term rhythm as applied to visual series can be reconciled by regarding the rhythm experienced by Rowland's subjects as a subjective rhythm in the sense that its direction was determined by the subject, not by the series itself. We could, then, admit with Ross that there is no objective rhythm present in a series unless the direction of movement is fixed by the series itself.

Effect of Position in a Series. Judgments on the pleasantness of simple forms are affected by the character of the series in which they are presented. It is, therefore, possible to enhance the attractiveness of a given figure by placing it in a certain position in a series. Witmer found that with simple figures there was a tendency to choose the middle figure of a series. In tests of my own (limited in number, it is true) it appeared that there was a tendency to choose a figure which was not the extreme in a given series. The experiments were made with circles of different sizes, and these were presented in graduated series, two at a time, three at a time, four at a time, etc., up to eleven at a time. When shown three together, there was a tendency to select the middle one as most agreeable. When four or more were shown together, that one would sometimes be chosen which

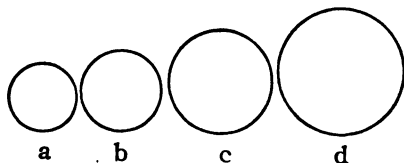


FIG. 32.

seemed to mark the center or fulcrum of a balance, though in a preceding test it had been judged inferior to its neighbor. Thus, Fig. 32, c was chosen as most agreeable, but when a, b, and c were shown without d, then b was said to be best. The same kind of test was tried with rectangles of different proportions, and here, too, the liking for certain proportions seemed to be affected by the proportions of the neighboring rectangles. These points

illustrate the well-known general law that the context in which a simple form is presented affects the esthetic judgment of it. It would be desirable to have a much more extended set of tests than those mentioned. It is probable that the results would show an avoidance of extremes and a preference for the typical (not necessarily the average) in esthetic judgments.

Effect of Size. Largeness is sometimes given as an esthetic quality. It is often an attribute of the sublime. Gods and heroes are represented as something larger than human. To paint vastness in natural phenomena may be impressive, and in architectural construction size is certainly an important element of effect. But size is impressive only as an index of energy and power, and since smallness, compactness and fineness of organization are often also the signs of power it would be impossible to regard largeness as universally and unequivocally an element of beauty. Burke, indeed, says that **smallness** is necessary to beauty. It is safe, and sufficiently definite, to say that both largeness and smallness may be pleasing, largeness when it means power, smallness when it means fineness.

Symmetry or Formal Balance. In the discussion some pages back, on the balance of color, it was indicated that the center of a composition is an apparent fulcrum and that the two sides ought to be equally weighted in order to give the spectator an agreeable sense of good poise. In a perfectly symmetrical form one half is exactly like the other except for the reversal of direction. The reason why we like a balanced better than an unbalanced figure is explained on the basis of our imitative movements.

The human organism is bilaterally symmetrical, and any stimulus which arouses activities on both sides and in a symmetrical manner, is doing something congruous with our plan of bodily organization. Such an object stirs us in a "natural" and harmonious way. Symmetrical activity is agreeable; we "feel right" when the mass and the activities of the two sides of our bodies are balanced, and consequently other things look right when similar conditions obtain. In primitive art we find another factor which tells in favor of symmetrical ornament. Savages in decorating their own bodies or in helping each other decorate, had a symmetrical object as the basis of their designs. It is probable, then, that when they came to make designs on plain surfaces the tendency to make them as usual in a symmetrical way would persist.

Now, though good balance is always pleasing, a perfect geometrical symmetry is seldom used except in conventional decorative patterns, and in architectural features. In representative painting it would be too rigid and monotonous. Variation of some kind must be introduced. Raphael went about as far as a painter may in the direction of formal balance. The Sistine Madonna is an example. Here there is no literal identity in the two sides, but at the same time the masses and forms are pretty evenly matched; there is a curtain for a curtain in the upper corners, Pope Sixtus for St. Barbara at the sides, and a cherub for a cherub at the lower edge.

The two sides of a symmetrical or balanced pair of lines or masses are sometimes called by artists "question and answer." Thus Fig. 33a is a question which may

be answered as in Fig. 33b. Crane says: "One cannot draw a line or define a form without demanding an answer—that is, a corresponding, re-echoing line or mass." It is interesting to notice the analogy between this con-



FIG. 33.

ception and the principle of musical design which we met as "antecedent and consequent."

Balance of Interest. In many pictures which show but little formal symmetry the arrangement of elements is such that there is a virtual symmetry. Puffer has called this a "substitutional symmetry," and for the sake of illustrating the principle she has offered the following classification of the items of "weight" in a picture. She says we may have (1) *mass*, (2) *depth* or *vista*, (3) *direction of line*, or of *motion*, or of *attention* (e.g. the direction in which a person in the picture is glancing), and (4) *interest*. In good pictures one will probably find an equation in which two of these items are set over against the other two, unless it happens that one item is extraordinarily strong, and in this case it will be balanced by the other three. In a portrait, for instance, if the mass of the person's form is on one side of the canvas together with some interesting object like a flower or an animal, one would expect to find on the opposite side some vista or depth, or direction of line. In "substitutional"

symmetry one finds that a small, interesting object may balance a larger one of lesser interest.

Although symmetry of form and symmetry of interest are agreeable features of pictorial composition, they are neither of them absolutely essential. A strikingly unbalanced picture would probably always be uncomfortable and displeasing, but in some compositions the thought of, or the feeling for, symmetry seems not to come up at all. In Watts's portrait of Ellen Terry, for example, nearly everything of interest, as well as most of the mass and direction of attention, are far out on the left side, and in some Japanese prints it would be far-fetched, if not impossible, to point out any bilateral symmetry. In these cases there is no felt lack of balance, the conception of balance is merely irrelevant.

Balance on the Vertical Axis. Another phase of the problem of balance is the distribution of masses and spaces between the upper and lower parts of a composition. An arrangement may be symmetrical in its right and left halves, but wholly unsymmetrical as between upper and lower halves. In general, to prevent top-heaviness and give, as it were, enough ballast to a composition, there should be more below the center than above it. Pierce's experiments show that the principle of stability is of even more moment than that of left and right balance. An inverted pyramid would be an unpleasant and precarious-looking structure. The visible sign of a sure equilibrium is breadth of base, and most massive things are built to slope by more or less obvious degrees toward their tops. It is not true, though, that all beautiful and well-poised forms are

larger at the bottom; very good effects are sometimes secured by putting the mass of the thing represented near the upper limit of a picture. A mass of graceful flowers may fill the upper part, with only their slender stalks below; a drift of clouds or a flight of birds may be shown high up in a picture, with only a few faint landscape lines below, the nearest possible approach to empty space. Why do not such pictures look as top-heavy and unstable as the inverted pyramid? The reason is that they represent things which are not dead, inanimate weights, but are delicate and light. Placing the flowers or clouds or birds above the center of the picture, with the empty space below, is just what suits their character, and brings out their lightness and buoyancy. These two facts, then, are part of the same truth: to gain stability, large masses must lie below the center, and this is appropriate when the masses are supposed to be heavy; to gain freedom and buoyancy, masses may lie above the center, and this is appropriate when the masses represent something light. It would be interesting to have experimental evidence on this question of how far the ideational element may modify our feeling of "weight" in a picture.

Central versus Axial Balance. In Fig. 34 there is a balance on the horizontal axis between 1 and 4 on the left as against 2 and 3 on the right. On the vertical axis 1 and 2 balance with 4 and 3. In distinction from these two types of balance on an axis, there is also a relationship of balance between 1 and 3 and between 2 and 4. Ross designates this as balance around a center, or balance of double inversion. It is evident that if 1

were revolved around the vertical axis it would coincide with 2, and if then revolved around the horizontal it

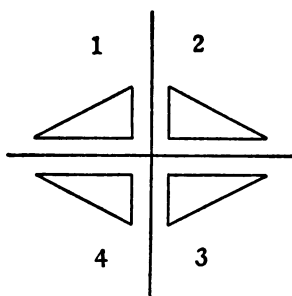


FIG. 34.

would coincide with 3. An illustration of this kind of balance is apparent in Hokusai's wave (Fig. 35).

This wave picture illustrates about all the points that we have made on visual form. The sides of the inclosing rectangle are as 3:2 (the proportion which Fechner places next to the golden section in beauty). The two most prominent lines, as well as some of the subordinate ones, are serpentine in form. There



FIG. 35.

is a substitutional symmetry in the balance between the mass of the wave on the left and the effect of aerial depth which (in the colored print) is brought out on

the right. There is also a shock of opposed forces visible in the water sliding down from the right, but tossed back from the left. The buoyancy of the wave is increased by the fact that the crest is so near the upper edge of the picture. There is fine repetition in the serpentine lines, and, finally, there is the relationship of double inverted balance between the two main lines x and y .

Effect of Optical Illusions. It is important to the artist to recognize the character of certain optical illusions in order that he may know either how to make use of them in his work, or how to compensate for them. Among the most common and patent of such illusions are the following: (1) There is a tendency to overestimate vertical as compared with horizontal distance. Hence a figure which really is square looks a trifle taller than it looks broad, and in order to get a figure to look square the designer must make it a little broader than the geometrical square. Experiment shows that the apparent squares are esthetically more pleasing than the figures which measure square but do not look it. (2) There is also a tendency to overestimate size in the upper part of the field of vision. The letter S looks as if its upper and lower parts were about equal in size; but when it is inverted we can see that we must ordinarily overestimate the part that belongs above. (3) This exaggeration of the upper part of a figure is sometimes reversed by other illusions. Thus in Fig. 36a 1 looks slightly larger than 2, though they are the same size, but in the second arrangement, Fig. 36b, 1 seems rather smaller than 2, though again they are the same. (4) The

familiar Müller-Lyer illusion is another which should influence artistic treatment. The apparent length of line can be changed by changing the direction of the lines which diverge from it. (5) The classical instance of artistic correction for illusion is in the Greek temple.

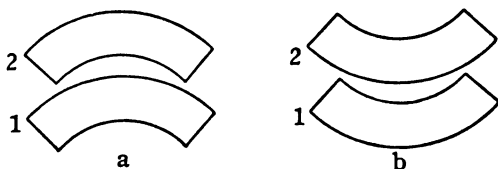


FIG. 36.

The stylobate of the temple curves upward in the middle to correct the apparent sag in long horizontals with verticals resting on them. The entasis, or outward swelling of the column, prevents the somewhat concave appearance which rigidly upright lines would give. The axes of the columns converge a little at their tops, preventing any appearance of spreading apart.

There are many more optical illusions to which we are subject, and many other forms of the ones mentioned, but there has been enough said to show that optical illusion may have a very considerable influence in artistic work.

Union of Action with Repose. No artistic work should be composed wholly of active lines or wholly of resting lines; a design which gives nothing but excitement is apt to be wearing, while one which gives nothing but repose is apt to be dull. The eye in either case demands variety and relief. Here, too, we might speak of a balance as obtaining between stimulation and rest.

This formula is adopted, indeed, by Puffer as the test of every kind of art. But if we adopt the conception of balance we fail to allow for the fact that some compositions may properly have more stimulative power and less rest in them than others. A more liberal formula would be the "union" of action with repose, leaving the amount of each indeterminate.

Adaptation to Conditions. An artist in creating new forms does not merely "design" them; he designs them *for* something, or in *answer* to some demand. A designer who is commissioned to decorate a specified surface finds himself confronted with specified limitations, within which he must work. His space is of a certain size and shape, and occupies a certain position in a building. The building itself is dedicated to certain purposes, and possibly it is desired that the design should illustrate some given conception, or commemorate a given event. All this looks at first like so much hindrance to the artist's imagination; but it becomes, in fact, suggestive to him of an arrangement of lines and figures which he would otherwise not have conceived. When working without a commission an artist must set up limitations for himself, must imagine himself into a situation from which suggestions may come. Just as, within a composition, some lines are the answer to others, so the composition as a whole is an answer to the situation or set of conditions. In yielding to these specific conditions and expressing them, the design becomes individual and gains specific character. In adapting his old images to new situations, in coöperating with new conditions, the artist produces something new. We should be able

to tell at a glance what kind of space a figure was designed for, whether for a square, a circle, a spandril, a lunette, etc. If it is possible to do this, then the design expresses its spatial conditions, and is adapted to them. A design, also, which lets one see the sentiment which prompted it, expresses and is adapted to another of its conditions.

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CHAPTER XI

ARCHITECTURE

ARCHITECTURE, as distinguished from sculpture, painting and surface design is more readily recognized as a practical art. It serves to inclose and protect spaces for human use, and to support and "set" other works of art. To accommodate specific needs of private life, of civic life, of religious worship, etc., and at the same time to satisfy the general need of pleasing the eye, is the twofold purpose of the art of building. Architecture, like pure ornament, is not the imitation of an object, but is the object itself. Unlike pure ornament, it has special practical ends to fulfil. Notwithstanding its practical connection with life, architecture is known as an abstract art.

Architecture is Abstract. In the terminology of Hegel, art is the manifestation of the Idea (by which is meant the concrete world-process) to Sense. The earliest form of art is an imperfect one-sided presentation of the idea; it is symbolic and abstract. The chief form of art at this stage is architecture. Architecture, we may say, is abstract in that it is a less intimate and less flexible medium than some of the other arts for the portrayal of human emotions and events.

There is another sense, however, in which architecture is abstract,—a sense which is more concerned with the actual structure of a building than with its ideal express-

iveness. A structure is abstract when the masses and lines which compose it seem to proceed directly about their business, and to have the minimum of imitative intention or of unreasoned deviation from their purpose. The elements of artistic building are masses, spaces and lines, and these are abstractions from the visible universe as we experience it. A vertical shaft, for example, resembles in a sense many different natural forms; it is like the trunk of a tree, the stem of a flower, the leg of an animal, the body of a man. It resembles all these, and they resemble each other by virtue of standing upright and being able to carry a weight. Similarly, a horizontal beam resembles a tree-trunk laid down, or a long flat stone, or the roof or floor of a cave, and this simply because it spreads out from side to side and is proof against the weather. Both the vertical shaft and the horizontal beam represent the element which is common to a number of natural forms; they each embody the general characteristic of a group,—of support on the one hand and covering on the other, — without literally imitating any special member of the group. In this sense they are both abstract forms; they stand for the common or generic idea of the group. Simple geometrical figures like shafts and beams, though the feeling-tone which we connect with them is the result of all past associations with their like, are so far shaken free from particular circumstance that we do not have to think of them as really imitating anything or representing anything except the idea of support and protection. The primitive builder propped up or roofed over his shelter with what branches or stones he found at hand. But as soon as the ideas of roofing and of

support became dissociated for him from accidental forms, that is, became independent of particular stones or posts, he doubtless became more critical of his materials, began in his mind to whittle away their irrelevancies, and to imagine a more direct and abstract fulfilment of his ideas.

Inertia of Established Forms. The architectural inventor, like every inventor, picks out from already existing things the principle which is essential to his particular purpose. Sometimes, however, the existing forms carry such a weight of suggestion with them that he fails to abstract enough from them, fails to analyze the logical elements from the traditional, and hence it happens that old forms, or modifications of forms, get repeated in situations where they are no longer needed. Lübke¹ mentions the fact that in some of the smaller pyramids of Egypt the lintel of the entrance "distinctly reminds us of a wooden construction; for in many cases there is a cylindrical, trunk-like beam uniting the two door-posts, and even the ceilings of the apartments are repeatedly made in imitation of pieces of wood fastened together." The likeness of the Greek Doric temple to its wooden forerunners has often been written of. Crane says² the temples "may be considered as only glorified enlargements in marble of their wooden predecessors, retaining all the characteristic details of those primitive structures." Again, when the Romans copied the Greek column and combined it with their arch they did not wholly abstract the column from its connection with the architrave which it supported. As Statham

¹ "History of Art."

² "The Bases of Design."

writes:¹ "To their ideas . . . it evidently seemed that a column was incomplete without an entablature; and accordingly, instead of springing the arch from the column, they inserted a square slice of the proper entablature over the column, and sprung the arch or vault from that." Such instances are unthinking appropriations of earlier forms. They serve to remind us that concrete art-works cannot be always wholly explained by reference to constructive necessities or to conscious esthetic preferences. As the architect advances, however, in artistic thought he subjects the old forms to critical analysis, and retains only the parts which can be made useful either in the construction or the ornamentation of the new form.

Expressiveness of a Building. Architecture may be expressive in a variety of ways. It expresses first its climatic conditions, since it is a method of meeting them, a response to their inclemency. The roof, the projecting cornice and drip-stone answer the purpose of carrying off rain. The sharp gable of northern structures sheds off the snow. Southern buildings, which have to keep out the hot sun, have relatively little window space, while northern buildings with their relatively greater window space, are adapted to a condition of mistier illumination.

A building may reflect the social condition of the workmen who make it. Ruskin professes to tell the degree in which the individual workman is free or is reduced to the condition of a mere machine by observing whether the details of a given building are alike or not.

¹ "Architecture for General Readers."

"If, as in Greek work," he says, "all the capitals are alike, and all the moldings unvaried, then the degradation is complete . . . if, as in Gothic work, there is perpetual change both in design and execution, the workman must have been altogether set free." Many of the structures of antiquity are simple in conception but remarkable in bulk, and might therefore seem to express the subjection of many workmen to a few thinkers; they show a quantity of brute force rather than an association of many intellects. Gothic building, on the contrary, is not a mere quantitative achievement, but shows imaginative power in its many details, and stands as the result of intelligent and interested coöperation, rather than the dull fulfilment of despotic command.

Buildings for religious use are expressive of the type of worship which is performed in them. Churches in which the priestly functions are regarded as sacred, or as highly important, emphasize the position of the altar; the main body of the church forms an avenue leading up to the altar-end, which is elevated and railed in as holy ground. On the other hand, churches in which a spoken address is the main part of the service tend to take the theater or auditorium shape, the long vista being replaced by a more shallow and circular arrangement. In Mohammedan mosques there is no vista leading up to the shrine; for the Mohammedan does not look on any special part of his mosque as sacred.

Architecture may express the sentiments or temperament of the builders, as Gothic is said to represent aspiration, the Greek temple rationality and repose, the Egyptian mystery and awe. To say that a building expresses

certain sentiments is not saying that every part and line of the building was consciously designed by the builders to express these things, but merely that the structure as a whole was conceived under the influence of certain feelings. To take Gothic for an example, it seems fair to say that a Gothic church as a whole was consciously meant to express religious aspiration; there certainly was no "constructive necessity" which compelled men to build to such towering heights; but the determination once given to build to a great height, there was a constructive necessity for using pointed arches to attain it. Thus the pointed arch was at first merely a technical requirement. For the observer of the finished product the expressiveness of a building depends upon the way its lines and masses affect his physiological functions. Certain lines, as we have seen, have accumulated emotional meanings, and naturally when these predominate in a given building, the building as a whole will affect the observer in a characteristic manner. New combinations of these significant lines may be made which will give a building an emotional tone peculiarly its own.

Finally a building is considered expressive if it plainly shows the principles of its own construction and the plan of its parts. The main lines of a building should, in general, reveal rather than hide the mechanical problems which the architect has had to solve and the physical means by which he has done it. A few examples will point out the difference between lines which reveal and those which conceal a principle. In Fig. 37a, b and c, the inside lines form respectively the line of the lintel, the round arch, and the pointed arch. In all

three cases, however, the principle of construction is the same, namely, the principle of the lintel, since the space between the supports is bridged in each case by a cross-piece which exerts only vertical pressure. In order to be

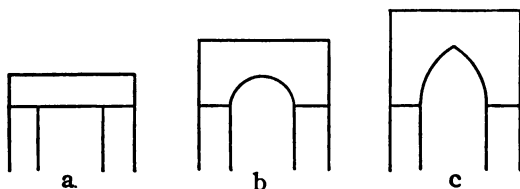


FIG. 37.

an arch in constructive principle as well as in line the arch must be built up of wedged-in pieces (voussoirs) which exert lateral pressure, as in Fig. 38a and b. To take a reverse illustration, one might find a building constructed in real arches, in which the arches were masked by

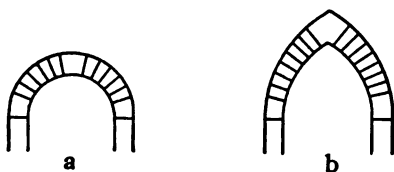


FIG. 38.

a wooden framework on the lines of the lintel. This sort of procedure is in general considered improper. So, too, would a dome on the exterior of a building be out of keeping with a flat ceiling inside. The exterior, to be expressive, should give some clue to the interior plan. Obviously, if one part of a building is to be expressive of

the other parts, there must be a certain congruity of lines and consistency of style throughout. When there is such a harmony that the details conform to the general character of the structure, echoing the lines of the whole, then any part may be said to express the whole.

Ruskin's discussion of the "Lamp of Truth" in architecture takes up the subject of expression as if it were a matter of morals. It is bad, he considers, to use materials, such as imitation marbles, which look to be what they are not. It is dishonest to leave parts of a building unfinished just because they will not be seen. The using of machine-made for hand-made ornaments is a "downright and inexcusable lie." What is the justification, if any, we may ask, for such a point of view as Ruskin's? What has architecture got to do with truth? Truth in architecture, one may say, depends on a correspondence between appearance and constructive fact. But this statement admits of some modification; a distinction ought to be made between a good deception, a thing which looks entirely probable, a thing which might be true but happens to be false, and, on the other hand, a thing which on the face of it must be false. If marble were imitated successfully, and used where marble might be appropriately used, the result would not be artistically bad. But the second kind of falseness, where a striking improbability presents itself to the eye, is likely to be found displeasing. Examples of this kind of untruth are found in certain domes. The external dome of St. Paul's in London¹ is said to be a wooden one representing stone, and is built over a stone cone which

¹ See Statham, "Architecture for General Readers."

rises from the real internal dome of masonry. Surmounting the whole is a heavy stone lantern, which looks as if it were carried by the external dome, but is actually supported by the hidden stone cone. The objectionable feature is that a dome the size and shape of the external one could not really carry such a lantern as it appears to do. Again, the dome of the Florentine cathedral built in the shape it is could not stand were it not for the chains which, hidden between the outer and inner shells of the dome, encircle it and bind it together.¹ Visible buttresses rather than hidden chains are the normal principle of dome construction. To an architect's eye, therefore, these two domes would each appear to be doing an impossible thing. Just as we said of a dancer that he must not merely be well poised, but must appear so to the eye of the spectator, so a building must not merely be stable; it must also look stable. It should appear probable, and seem to explain itself to the eye. To be consistent with itself, and not to appear miraculous, is the only necessary truth for architecture.

Principles of Ornament. In primitive art, buildings are often loaded with pictures and barbaric gauds which are evidently designed to enrich the whole impression, but which sometimes tend to obliterate the beauty of the building they are meant to adorn. The reason is that they are merely annexed to it and not incorporated with it ideally. In more mature art the necessity for the "working in" or adapting process becomes felt, until finally only that is recognized as ornament which seems suggested by the structure to which it is added. In

¹ See Moore's "Renaissance Architecture."

attaining harmonious adornment two important principles must be followed: the principle of repetition, whereby a feature already existing in the building is intensified and set off by imitation; and the principle of contrast, whereby a feature is pleasantly counterbalanced by lines or figures of an opposite character. Examples of the first principle are found in the fluting of columns, where the channels multiply and so emphasize the vertical lines of the shaft; also in moldings, cornices and vault-ribs, which mark and repeat their corresponding construction lines. An example of the second principle is apparent where the continuous straight lines of a molding are varied by having curling leaf or flower forms applied to them. "Contrast," of course, does not for a moment mean merely "difference." Suppose one had a border of repeating flowers carved in stone, and wished to introduce some differences into the series. One could insert bits of colored glass, say, or little tin soldiers, and get variety, but the break between the flowers and such alternates as these would be too great to afford any real sense of contrast. To introduce real contrast into a border of stone flowers one must stick to the original material, and select some form congruous with the flowers, say a leaf or tendril, which may be allowed to curve in a direction opposite to the flowers. This would introduce difference, but with a certain similarity as the backbone of the arrangement, and such difference is contrast. Contrast implies as strict a reference to the original form as imitation does.

Architecture in Relation to Landscape. The embellishments of a building must conform to its character;

but the building itself may be regarded as the ornament of a landscape to which it in turn should conform. A structure may, in a limited way, reflect by imitation and by contrast the character of its natural surroundings. It is part of a larger whole. The impressiveness of the Greek temple is greatly heightened when considered in relation to its proper site. In Greece, where the formation of the hills gives endless and restless variety, it is fitting that the architecture should introduce repose and a point of calm into the scene. The temple which is the crown and finish of a rocky citadel like the acropolis of Athens, or which commands the heights and distances of Delphi or Egina must have simplicity and repose. To dominate Greek landscape the trait most essential is severity and poise. The Gothic cathedral, on the contrary, which rises as the sole eminence in a level land, may soar as high as it can, and properly display its lavish variety of architectural features. Castle architecture is harmonious with promontories or precipitous rocks; for the strong lines of the battlements take up and complete the rugged character of such situations. In cottage architecture it is sometimes possible for the lines of the roof to echo the slope of neighboring hills or of surrounding trees, and wherever such harmony is possible it is a contribution to the beauty of the whole scene.

Certain Architectural Types. It is customary to distinguish three ways of covering in a space, namely, by the lintel, the round arch, and the pointed arch. Moore says¹ that "There have thus far existed in Europe but three entirely consistent and distinctive styles;

¹ "The Character of Renaissance Architecture."

namely, the Greek, the Byzantine, and the Gothic." Lintel architecture is most perfectly expressed in the Greek temple, Byzantine style best exemplifies the use of the round arch and the dome, and Gothic the use of the pointed arch and high gable. In the following accounts of these three types, and one other, the Egyptian, we shall try to characterize the emotional effect of the typical lines and space-arrangements on the beholder. We wish to determine what feelings these buildings stimulate and how they do it.

Egyptian. The Egyptian temple was built on the plan of an enormous oblong, being about three times as long as it was broad. Of the external appearance Lübke says:¹ "Huge sloping walls, crowned with the overshadowing concave cornice, surround its enclosure, and invest the whole with a solemn and mysterious character. No opening for windows, no colonnade interrupts the monotonous surface of the temple wall. . . ." Entering this structure through a massive gateway the worshiper passed through halls and courts which enclosed long rows of great columns. The avenues of pillars finally led up to the furthest end where the small inner chamber was reserved, sacred to the gods, and entered only by the priests. All the rest of the building formed a setting and an approach to this. The size and immense solidity of the entire structure, the mighty columns of the interior and the stateliness of arrangement, were well calculated to command the sentiments of wonder and awe. The great sloping walls would suggest an everlasting strength like that of the pyramids. The impression of mystery was

¹ Op. cit.

fostered, not only by the severely shut, uncommunicative exterior, but also by the fact that the sanctuary was remotely withdrawn, and could be approached only by the whole length of the vast building. The Egyptian temple may well stand as an expression of ancient ideals and the ancient régime, inasmuch as it exalts strength and endurance above everything. It shows a relatively simple idea carried out on a great scale, a state of affairs more likely to come true in a despotism where the ideas of one man, or of a small group of men, may be imposed on the efforts of many.

Greek. The Greek temple, built with reference to external rather than internal appearance, is quite the reverse of the Egyptian in having its colonnades outside and its walls inside. The Greek temple is also smaller and more compact than the Egyptian (the Parthenon measures 101 by 227 feet, the temple of Karnak 370 by 1200 feet). The Greek edifice, instead of leading up in one direction to a shrine, offers an approach from every side. The exterior is one continuous portal. This free and open plan of the building and its moderate size show that a wholly different type of appeal was intended from that made by the forbidding and mysterious Egyptian exterior.

The principle lines of the Greek temple are the verticals, which give an appearance of strength and effort, the broad sweep of the horizontals, which give repose, and the slant of the low gable introducing action and life without destroying quiet. This temple is the admired and perfect example of beauty in simplicity, and there is, indeed, a serene candor in it. The main plan of the building

is immediately perceived, and, far from being in any way concealed, the constructive principle is laid open. Whatever lines are found to be necessary are accepted as comely and made conspicuous by repetition; the vertical lines of support are repeated, not only from column to column, but also in the channeling of the shafts, and in the lines of the triglyphs. The horizontals are emphasized in the architrave, frieze and cornice. This structure, by its very simplicity and clearness of design, even makes on some minds the impression of hardness and finality. Ruskin says:¹ "No architecture is so haughty as that which is simple . . . which implies, in offering so little to our regards, that all it has offered is perfect."

Every part of this apparently simple structure was carefully thought out in its relation to the effect of the whole. The corner columns, which are seen against the sky, and so suffer apparent diminution by irradiation, are made slightly larger than the others in compensation. The profiles of Greek moldings do not show easy and obvious curves like the circle, but are subtly graded. The shadows on the triglyphs are carefully toned by the device of undercutting the edge of the stone. A multitude of refinements witness the supreme care with which the proportions and details were considered; and, though the building problems of the Greeks were limited, they were solved artistically with a brilliant completeness.

The Greek has been called the architecture of "rationality," though this is scarcely a lucid term. "Rationality" might mean a variety of things in connection with building: in one sense any structure is rational which is adequate

¹ "Stones of Venice."

to the purpose for which it was devised, and in this sense the Greek temple is no more rational than many another building of wholly different character. But if by "rational" one means that which is opposed to the mysterious, and to the fanciful, and something which is preëminently moderate, then the Greek temple is appropriately called rational. It is moderate in size. Its ornamentation is adequate but not luxuriant. It shows a minimum of unreasoned variation; thus in a given series of columns the capitals are alike, for one form having been selected as best is maintained throughout. The whole impression is of a thing matchless in serenity and dignity.

Byzantine. Byzantine is the completely developed architecture of the round arch and the dome, and Santa Sophia is the supreme example of the type. The square and the circle, Ruskin says, are the areas of power. Both principles are characteristic of Byzantine architecture, which gains thereby a concentration or compact might. The ground plan of Santa Sophia is nearly square, and the drum of the great central dome rests on four large arches arranged in a square. The spaces between the corners of the square and the ring of the dome are covered in by quarter-domes. Byzantine architecture, which was designed chiefly for interior effect, gets interior variety from its columns and piers, its flat surfaces and domed surfaces, its straight and its arched lines. The details are consistent with, and expressive of the general plan, the windows being round-headed and the capitals of the columns convex. The round arch is a less severe, much more buoyant line than the lintel,

and a series of mounting curves, like those of the Byzantine interior, gives a feeling of lightness and elastic power. There is something ample and gracious in such lines and spaces.

Byzantine architecture is distinguished also by the splendor of its interior decorations. The free use of colored marbles, and of rich mosaics against their gold backgrounds contribute to an impression of luxury and magnificence which is equally removed from Greek severity and from Gothic gloom. It brings a sense of present realization rather than of aspiration.

Gothic. Conspicuous features of Gothic style are the large central nave, terminating in a choir; side aisles, one or two on each side; a transept; high pointed arches and vaults; flying buttresses which prop these arches from the outside; acute gables, pinnacles, towers, spires. Also great windows filled with richly colored glass, and divided with stone traceries. Not all these elements are found in every example of good Gothic, but all of them are proper to the largest churches of the fully developed style. A definition of Gothic is given by Moore (following Viollet-le-Duc) as follows:¹

"The whole scheme of the building is determined by, and its whole strength is made to reside in, a finely organized and frankly confessed framework rather than in wall. This framework, made up of piers, arches, and buttresses, is freed from every unnecessary encumbrance of wall, and is rendered as light in all its parts as is compatible with strength—the stability of the fabric depending not upon inert massiveness (except in the

¹ "Development and Character of Gothic Architecture."

outermost abutments), but upon a logical adjustment of active parts whose opposing forces neutralize each other and produce a perfect equilibrium. It is a system of balanced thrusts in contradistinction to the ancient system of inert stability."

This account of the structural idea of Gothic may be supplemented by Ruskin's characterization of the "spiritual meanings" of Gothic. It is savage and rude, and in this ruggedness and lack of perfect finish he finds the sign of its vitality. It shows variety and love of change; for its ornamental detail is never exactly repeated or precisely balanced as in classic art; moreover the pointed arch is capable of greater variation than the lintel or the round arch. Next he mentions the love of nature as displayed in the lavish use of flowers and foliage forms in traceries and carvings. Again there is the element of grotesqueness, exemplified in the figures of gargoyles, imps and monsters. As a fifth point he speaks of a certain rigidity or elastic tension; "Gothic ornament stands out in prickly independence, and frosty fortitude . . . never for an instant languid, always quickset; erring, if at all, ever on the side of brusquerie." Finally, he finds a significance in the redundance or lavishness of ornament and detail, a kind of anxiousness to please which is in strong contrast with the "haughty" simplicity of Greek architecture.

The mood associated with a Gothic cathedral may be compared to the consciousness of the ascetic who through renunciation of physical comfort attains a beautiful vision. Out of the coldness and grayness of the stone, the gloom of vistas and shadows, the long tenuous lines

of the vaulting carry one up to the glowing medley of color in the clerestory. The impression is at once more harsh and more tender than that of the Greek temple. The buildings are as different as are the temperaments and the religions which they represent.

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CHAPTER XII

SCULPTURE

THE problem of the artist, as we have seen, is to work out some image or form which will objectify his emotion and communicate it to others. The exact configuration of the finished work of art depends upon the original feeling, but also upon the material medium through which the artist wishes to express it, and the limits which the medium imposes upon his imagination. The feeling and the medium modify each other, and the final form of the work is an adjustment between these two. It is well to keep this in mind at the outset of every discussion of a special field of art. The medium of the sculptor is the human form (sometimes also animal forms) represented in some enduring material like marble or bronze.

Relationship to the Dance. Sculpture has this in common with the art of dancing — that its chief vehicle of expression is the human figure. These two are, in this respect, the best fitted of all the arts to deal with the physiological aspect of emotion; they do not portray sorrow by somber colors or low tones, but by the actual appearance of the sufferer — the bowed head, relaxed muscles, dejected form. A study of the dance ought to be full of suggestion for the sculptor, and, indeed, the ancient Greek and Roman artists sought very much after the dancers of their day to use them for models, and to represent them in characteristic attitudes of the dance.

The rules which govern the artistic presentation of the real human body must have validity, though of course with some modifications, for the sculptured body. Thus the principle of opposition, or the proper balance of parts, is as important a rule in sculpture as in the dance. The points on which sculpture differs from the dance are partly a limit to its expressiveness, and partly an opportunity. Dancing consists of movements as well as of attitudes or arabesques, but it is only the latter which the art of sculpture is able to render. It is true that indirectly, that is, by suggestion, some idea of movement is conveyed by a statue, some play of rhythm in its lines, but the impression lacks the intensity and vivacity of an actual movement executed by a dancer. On the other hand, the statue is capable of more simplification and abstraction and of certain artistic exaggerations which are impossible to the living form. A rough-hewn statue sometimes gains in power by its very want of detail; and again, a pose pushed slightly beyond the natural, or an idealized muscular development, may make a statue more telling than the living form would be. The sculptor may exaggerate or may eliminate; that is, he has to his hand the human form in various poses, with license to alter where he wishes.

Early Uses of Sculpture. Sculpture rose out of certain specific practices, and only in its maturer development became the expression of generalized emotional situations. Among the Egyptians there was an exceptional impetus to the production of portrait sculpture—an impetus connected with religious beliefs. The Egyptians believed that every man had a soul or “double” of himself which

left the body at death, but would rejoin it again at the resurrection. Meantime, however, the soul must have a resting-place. An image of the deceased person was accordingly made for its habitation, and the soul was supposed to reside in the image or likeness. Such a belief would tend to keep sculpture realistic. Among the Assyrians and Babylonians a prevailing use for sculptured works was the commemoration and glorification of the deeds of the king. Long processions of triumph, and pictured accounts of the king fighting, the king hunting, the king receiving homage, were chiseled on the palace walls. Hence the condition of sculpture with the Asiatics also tended to emphasize the imitative rather than the ideal side of the art. The same thing was true of the Romans of a later day, who cared more for the literal commemoration of events, and for the portrait likenesses of great men, than they did for a more abstract and typical art. Among the Greeks it was a different case. Their genius preferred the abstract and typical to the realistic and individual forms. For example, the commemoration of victory did not, with them, take the form of a portrait group in which their leader was shown in some actual moment of striking down his foe; but they rather celebrated it in the figure of a winged woman, with triumphant lines and victorious pose. Such a figure is more abstract, since it represents one person instead of a whole battle scene, and since it represents not merely one victory, but victory in general. At the same time such a figure stimulates the emotion of triumph more knowingly than any photograph of a battle would do. The firm forward-moving torso with its buoyant lines tends to

induce the like attitude in the spectator and hence to arouse the sense of power. Thus when sculpture becomes freed from the necessity of literal copying it becomes generalized, and more forceful emotionally. It then becomes art in the full sense.

The Sculpturesque Subject: The "Laocoon" Quoted. Out of all the possible human attitudes which indicate feeling, some must be rejected as unsuited for the sculptor's purpose. The discussion of this point as a question of esthetics was first begun by Lessing. Lessing's *Laocoon*, though "an essay upon the limits of painting and poetry," takes a sculptured work—the *Laocoon*—as its point of approach, and includes valuable criticism on the art of sculpture. This essay is an important one in the history of esthetics; it was a protest against the medieval regard for spiritual expression at the expense of form. Lessing pointed out that if sculpture is to be the medium of expression, it in turn may claim some regard and some concessions to its own peculiar character. The limits imposed by sculpture are indicated in the following quotations: "All phenomena, whose nature it is suddenly to break out and as suddenly to disappear, which can remain as they are but for a moment; all such phenomena, whether agreeable or otherwise, acquire through the perpetuity conferred upon them by art such an unnatural appearance, that the impression they produce becomes weaker with every fresh observation, till the whole subject at last wearies or disgusts us." It is proper to put into statues, he thinks, only the moments which can be naturally felt as enduring. Violent passion is transitory, hence for sculpture it must be modified or altogether re-

jected. He says, further, of the Greeks: "Rage and despair disfigured none of their works. . . . Wrath they tempered into severity. . . . Anguish was softened into sadness." (In this statement Lessing is borne out by Darwin's analysis of the accuracy of emotional portrayal by artists.) This toning down of the subject-matter to suit the character of the medium is artistically most proper. There is obviously some room, however, for difference of opinion, when it comes to applying the principle, in deciding just what degree of emotional expression is sufficiently restrained for purposes of art. There was a tendency, perhaps in Michelangelo himself, certainly in some of his successors, to choose for their representations moments of too dramatic quality. A notable instance occurs in Bernini's "Apollo and Daphne." The flying nymph and the pursuing god are shown at the most breathless and fleeting moment of their story; but when we see that instant lengthen out, and consider that it will last just so forever, they begin to look unconvincing and a little silly, in spite of their lovely lines. When, on the contrary, a sculptor chooses a mood and an attitude which might naturally be maintained for some time, he is choosing a subject peculiarly in harmony with the enduring medium in which he works. Donatello's "St. John," Michelangelo's "Lorenzo de Medici," and Rodin's "Penseur" are statues which only gain in mystery and strength by their persistent stillness and eternal power of contemplation.

The Sensory Stimulus Given by Sculpture. The sculptor's block is a solid substance with appreciable extent in three dimensions. By cutting parts of the surface at

different depths he creates a light and shade pattern — an effect which might be rendered on a flat surface by varying tones of paint. Just here the question arises whether there should be any difference in the type of sense-impression stimulated by a flat painted surface and that stimulated by substance which actually extends back in the third dimension. The possible difference is that with a three-dimensional object the near and far points may require changes in the focus of the eye. If we stand close up to a sculptured group which has great depth, we find that the muscles of accommodation must be brought into play in seeing the different parts of the group. We have to make many changes of focus. (This is true, of course, whether we look with one eye or both.) Now, according to Hildebrand, an artistic work will not require of us this shifting between far and near accommodation; but it will give itself to us as a whole, as if it were in a single plane. When we stand off at some distance from a group of objects we no longer feel the strain of varying accommodation, for the whole group flattens itself out into a single plane, the two eyes get the same kind of image (not different images, as in near vision or in stereoscopic vision), and we have a simplified and unified visual impression which Hildebrand calls the distance-image (*Fernbild*). Every plastic art-work should give this impression. Now this is not at all equivalent to saying that sculpture should get rid of the third dimension; for it is the very business of sculpture to render three dimensions; but it should stimulate the *idea* of depth without necessitating an actual change in the muscles of accommodation. In the next paragraph we shall come to an-

other phase of Hildebrand's theory, but in the meantime we must ask whether the visual elements of a sculptured work are the whole of its sensory content. So far as direct stimulation of sense-organs is concerned, there certainly is nothing beyond the visual elements; for statues are not meant to be really touched. Our conceptions of substance and surface, however, are inseparably allied with other experiences besides the purely visual, namely, experiences of touch, pressure and movement. When we see a graded surface or some tactually interesting substance, the imagery of touching and moving over it is suggested, sometimes, so strongly that incipient movements are really made. Whatever one's theory of space-perception may be, whether one believes that space is perceived as an ultimate fact of immediate experience, or thinks that it is known as a compound or fused result of many experiences of touch and movement, there is no doubt that these latter sensations do greatly enliven the notion of space. If a person passes his hand over the contour of an object, strokes, presses, and lifts it, his perception of its volume and form is, to say the least, enhanced by the performance. So, too, the emptiness of a given space, the roominess of a room, are more realized if one does actually circulate about and experience the freedom of movement thus afforded. If, therefore, a statue or a picture does stimulate the memory of such sensations, it is doing something toward the adequate representation of volume and extent. And certainly whatever solicits free movement or is inviting to the touch is so much the more absorbing in a sensory way to the subject of the experience.

Sculpture Should Give Unified Space Impressions. Hildebrand's theory of plastic form consists, in brief, in applying the conception of "relief" to all kinds of plastic composition. Good relief sculpture conveys at once the idea of figures in a unified plane or "single layer of space." Sculpture in the round (and painting too, he says) should give the impression of such layers. Hildebrand writes:¹

"Considering, now, a picture as a group of parts which illustrate objects in different distances, it is evident that these distances and the entire depth of the picture will be more clearly expressed, and more easily conceived when the objects are placed in few planes, and when the distances between these planes are relatively great. Each plane must be simplified as much as possible, so that our feeling for the third dimension may be stimulated through striking contrasts afforded by these planes." And again:

"Our concern is, that the figure in each of its aspects shall excite the idea of a layer of space, and at the same time describe a total space clearly possessing unity of plane."

Quite in the spirit of this theory is the idea very generally expressed by artists that a sculptured group should strongly suggest a simple geometrical form as its limiting space. Michelangelo's remark that a statue ought to look as well as ever after it had been rolled down hill is a way of saying that the form must be simple and compact. Rodin has said that the sculptured work, as a whole, should show its relation to some "natural" form

¹ "The Problem of Form," trans. Meyer and Ogden.

like the square or triangle. McColl writes of one of Rodin's statues: "He fashioned a block simple at a distance as a menhir. . . etc."

This, then, is the fundamental thing demanded of a plastic work as plastic, that it give the spectator a simple, clear, unified, spatial perception.

Relationship to Architecture. Another technical requirement of sculpture is that it shall compose well with its architectural setting. The lines of the composition will be governed to some degree by the position of the figure and the character of the building in which it is placed. This adaptation of the sculptured form to its enclosing lines was first developed as a general principle by the Greeks. Such adaptation is not generally characteristic of ancient art. But among the Greeks many of the best works were made for the adornment of temples, and this architectural position regulated rigidly the composition of groups and the pose of single figures. On the pediment of a temple, the bounding lines being those of a low triangle, the central figures must be made to stand well up, while the end figures must be sitting or lying down. Again, on the Greek friezes it was the practice to follow the principle of *isocephaly*, that is, to level up the successive figures by one means or another so that all their heads should be approximately on the same line. If there were some seated persons in the composition they were enough enlarged to bring their heads up to the right height, and this did away with the unsightly gaps which would otherwise have appeared in the line. In the Parthenon frieze the horses have been reduced in size in order that they might come within the limits of

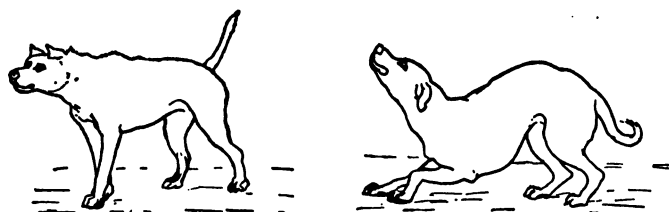
the composition. Medieval sculpture illustrates fully as well as the Greek, in some cases better, the principle of adaptation. The figures which occupy Gothic niches are conventionalized into harmony with the long hungry lines which prevail throughout the Gothic edifice. But their strict lines and constrained postures are not incompatible with, are perhaps even the occasion of, that repressed and eager grace which is the charm of some medieval sculpture.

The spaces usually filled by sculptured figures are simple and abstract forms determined by the lines of the building; such are the triangle of the pediment, the square of the metope, the long band of the frieze, upright panels and niches of various proportions. So important are such boundary lines felt to be by the artist that a composition, even when it is not destined for a particular position, is nevertheless ruled, as we have just seen, by some such geometrical figure as architectural problems would generate. Designers choose a limiting conception, like the triangle or square, and then model within its confines, and thus good composition is governed by architectural lines whether these are literally present or are simply imagined.

Sculpture as Objectified Emotion. The sculptor has not merely to fill spaces, but to fill them with human forms, and this gives him a special opportunity for objectifying emotion. A statue being permanent, and being, as a rule, a fairly literal representation of the human figure, is well suited to fix concretely and exactly the outward signs of emotional reactions. Music and pure design also, of course, express feelings, but not in the

way that sculpture does; for, although they give motor suggestions, yet a sculptured human figure offers a more literal model, and hence a stronger temptation to imitative reproduction on the part of the spectator. Külpe found¹, on showing a series of lantern slides, some of architectural works and some of sculptured figures, that only with the pictures of the human form did his subjects notice in themselves a tendency towards imitative poses.

A proper approach to the study of sculpture would be the scientific study of bodily attitudes and facial

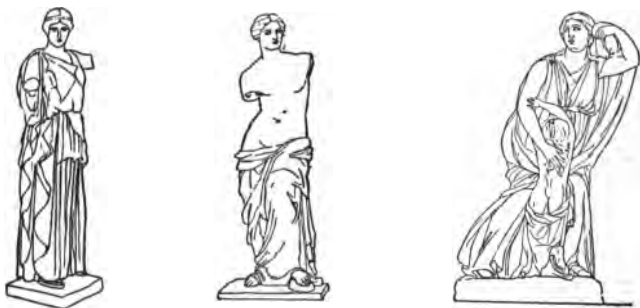


FIGS. 39a and b.

changes incident to emotion; one must know what the actual signs of emotion are before one can fully understand or appreciate what the artist has done. One may of course "feel" the accuracy of a representation, but one cannot know it without a knowledge of actual emotional appearances. The accompanying figures will illustrate one parallel between the observation of a scientific man and the practice of artists. FIGS. 39a and b are copied from Darwin. The first shows a dog approaching another dog with "hostile intentions"; the second shows the same dog in a "humble and affectionate"

¹ Am. Journ. xiv "Experimentelle Æsthetik."

frame of mind. Though the emotions do belong to a dog we can easily appreciate that the crisp rigid attitude with its straight lines stands for something very different from the feeling indicated by the bending sinuous one. An analogous contrast between straight lines and curves appears in these three figures (a) Athene, (b) Aphrodite, and (c) Niobe. The feeling expressed by Athene is



FIGS. 40a, b, and c.

not hostile, but it is strong and self-reliant and aloof. The attitude of Aphrodite is less severe and more conciliatory, while the attitude of Niobe, the most curved of the three, expresses pity for her child and entreaty to the gods.

The figure of Niobe also illustrates particularly well the idea that emotion represents a conflict of impulses. Two distinct reactions are apparent; she has the impulse to bend over her child to shelter and defend her, but at the same time the impulse to lift herself up in supplication. Her posture is a struggle to combine the two tendencies. Theoretically we should be able to trace in every statue,

which clearly expresses emotion, some mark of opposing tendencies, and this is certainly quite possible in many cases. Striking examples, other than the Niobe, are the Marsyas who steps forward, but at the same instant also starts back, thus expressing the sense of check and astonishment, the Moses of Michelangelo restraining himself from action, and hence vibrating with opposed impulses, the Laocoon half yielding, with head thrown back, to the irresistible coils of the serpent, and yet after all resisting them. Attitudes which reveal such contrasted impulses are the ones fitted to objectify emotion.

Repose. It should not be forgotten that the sculptor, though depicting strong emotion, must ever consider the demands of repose and dignity. Lessing, Winckelmann and others have rightly insisted upon a certain serenity of repose which characterized the work of the best Greek period. But the term "repose" must not be understood in too limited a sense. It does not mean inertia; for the complete relaxation of sleep would give us that, and it is far from the ideal of statuesque repose. On the contrary the repose of some Greek figures is not incompatible with very vigorous bodily action. Pater writes as follows of an athletic figure:¹

"It was as if a blast of cool wind had congealed the metal, or the living youth, fixed him imperishably in that moment of rest which lies between two opposed motions, the *backward* swing of the right arm, the movement *forwards* on which the left foot is in the very act of starting. The matter of the thing, the stately bronze or marble, thus rests indeed; but the artistic form of it, in truth, scarcely

¹ "Greek Studies."

more, even to the eye, than the rolling ball or disk may be said to rest, at every moment of its course — just metaphysically, you know.”

In many of the Greek figures, as in the metopes of the Parthenon or the Theseum, the action represents animated, even desperate, combat. Here, too, the only repose is a kind of balance between contrary motions. “Poise,” indeed, and “control” seem to be better terms than “repose” for indicating the characteristic quality of Greek works.

“Dignity” is another term which is open to misconception. A quiet standing position was very often chosen by the Greeks for their statues, and this is usually dignified and perhaps artistically best. But at the same time it should be remembered that marble figures cannot support themselves in very light, free positions. The problem of propping up the arms and legs without destroying the beauty of the composition is a hard one, and this technical difficulty may have been one reason for limiting marble figures to the less adventurous poses. With stronger material, as bronze, and with work in relief where the background gives support, this difficulty disappears and greater freedom of action may be and is introduced. Dignity is perfectly consistent with a great variety of positions, and does not consist in being perpendicular. Dignity, as the word implies, means worth or value, and a figure which in any way shows strength or control is to that extent worthy and dignified. Repose and dignity, then, we may accept as esthetic categories if we understand that they signify not inertia or rigidity, but rather balance, control and strength.

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CHAPTER XIII

PAINTING

Painting Compared with Sculpture. A certain logical simplicity is demanded in round sculpture by the fact that the products of this art are to be looked at from many points of view. They presuppose a movable spectator and hence an indefinite number of observation points, and hence, again, a successive rather than a simultaneous grasp of the whole composition. A logical simplicity in this connection would mean that the different views were so related that one seems clearly to "follow" from another, and that there are some limitations imposed on the composition by the fact that it is to be seen in other views. With painting the case is different. It extends in but two dimensions and so presupposes only one point of observation for the spectator; the spectator supposedly stands in front of the canvas and sees the picture as a whole. One result of this difference is the greater necessity for variety and action within the painted composition. The painting has but one face to show, and this, therefore, must satisfy the desire for variety and movement. The forms of sculpture which approach more nearly the condition of painting, namely, low relief and intaglio, show greater variety and vigor of action. This is due in part to technical considerations (p. 226), but perhaps also in part to the reason just given.

A second important difference between sculpture and

painting is the absence, or at least the complete subordination, of background, atmosphere, and perspective in sculpture. Occasionally a sculptured work, like Ghiberti's bronze doors, makes much of perspective and background, but this is exceptional. This difference results in the greatest changes in the composition of painted as against sculptured groups. Thus the flying figures in Tintoretto's "Marriage of Bacchus and Ariadne," and the "Origin of the Milky Way" make the most delightful patterns in these two compositions; but these very figures sculptured in the round, and hence with no atmosphere to support them, would look entirely too precarious for the comfort and pleasure of the spectator. Then, too, it will be remembered that a *vista* in painting is an element of unity, and can be relied upon to bind scattered items together. In sculpture, where this element is lacking, there is need for closely unified grouping, and the unifying lines must be found in the figures themselves; whereas in painting, thanks to the *vista*, as well as other features of background and atmosphere, the figures may be more freely disposed. In sculpture we may say that we get the person, the actor, almost wholly abstracted from his environment, and that we must construct the environment ideally. In painting, on the contrary, much more is made of circumstance and situation, and in pure landscape we have natural environment given with the person left out to be ideally constructed or felt if we like.

Finally, in modern times, there is the great difference made by color—modern, unlike ancient sculpture, being uncolored. This fact of color reacts also upon space-

composition. We saw above that painting, because of its backgrounds, may show its figures more widely scattered. It is also true that painting may adequately show a more crowded grouping than sculpture could successfully do, and this because one figure may be clearly detached from another by its different color, even though in line they are intricately engaged.

Limits of Light and Color. The painter who wants to represent any out-of-door scene finds that he has a limited palette or scale of colors with which to accomplish his purpose. To the accurate portrayal of nature in all its phases the artist would need to bring a scale in which the highest light was as bright as the sun, and the deepest shade as dark as a subterranean cave. Obviously the painter's white and black are but feeble suggestions of such wide-apart limits as nature shows. Kirschmann says that the sky on a gray day is brighter than a white painted cross-bar seen against it by four hundred twenty times, whereas the high light of a picture is never more than sixty-six times as bright as its deepest shadow. The painter's problem is to see what he can do with such a scale as he has. How shall he translate so as to represent nature with an instrument of this compass? In what sense can he truthfully render what he sees? This problem disappears, of course, if the object to be painted falls within the gamut of the artist's pigments; but for landscape, or anything well lighted up, it is an important one. Suppose an object has three tones which we may express by the number 40 for the lightest, 30 for the middle tone, and 20 for the darkest.¹ Then suppose

¹ Cf. Ruskin: "Modern Painters," part 5, ch.3.

further that the compass of our palette lies between 30 and 10. (These numbers have no absolute significance but are simply illustrative.) One possible method of representing the object would be to paint it in the three tones represented by 30, 20, 10, and in so doing we would be keeping true to the relative values of our object, but at the same time we would be painting them all wrong in the absolute sense, since for the real 40 we use 30, for 30, 20, and for 20, 10, this last tone 10 being one which does not occur in the real object at all. Another way of representing the object would be to use 30 for the highest tone, 20 for the middle, and 10 for the darkest. In this way we would be true to the absolute value of the darkest tone and nearly true to the middle tone, but we should have a wrong high light and also a wrong relation between it and the other two tones. Between these two methods of rendering the object a middle way can be chosen which will recognize to some degree the claims of both. One such compromise would consist in painting the tones in with 30, 25, and 20, thus keeping some semblance of the relative values and also keeping one tone absolutely true. These various schemes are summarized in this way:

- | | | | | |
|-----|----|----|----|--------------------------------|
| | 40 | 30 | 20 | = values of the actual object. |
| | 30 | .. | 10 | = range of available pigments. |
| (1) | 30 | 20 | 10 | = scheme of relative values. |
| (2) | 30 | 29 | 20 | = scheme of absolute values. |
| (3) | 30 | 25 | 20 | = combination of (1) and (2). |

Ruskin cites as examples of these three methods the work of Rembrandt for the first, or relative scheme, Veronese for the second, and Turner for the third. The second method was practised by the impressionists. By

their new way of blending colors by juxtaposition (see p. 152) they were able to raise their color scale some degrees in brightness; in this way they could slightly increase the truth of their tones, but this only in shadow. McColl writes:¹ "The positive truth the plein-airist can arrive at is limited to truth of value in shadow, and by every degree that he lightens his shadows up to their natural value he must reduce the gap between them and the lights, till it becomes trifling in comparison with the real gap.

"The new painting of sunlight, therefore, is a convention like the old: neither can render the lights positively; the old falsified the shadows, making them darker than in nature, so as to keep something of the truth of contrast between them and the lights; the new threw away this resource of effect to gain a general truth of brightness in lights and shadows alike, and a positive truth of fair clear color in the shadows."

Line and Mass Composition. Some of the most important elements of pictorial composition have already been noticed in the discussion of design; they are, balance,

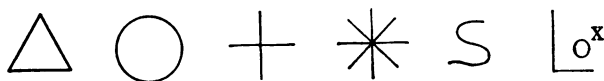


FIG. 41.

unity, and the organization on the basis of some simple geometrical figure. Poore distinguishes six fundamental forms of composition. These are based (Fig. 41) on the triangle, circle, cross, radii, letter S, and rectangle. These are really six principles of unification. The triangle and

¹ "Nineteenth Century Art."

circle show most concentration, the cross and radii most life. The letter S, or line of grace, Poore calls the most elastic and variable. The rectangle is the only unbalanced form and it requires an opposed mass as at x (Fig. 41) to complete it. These types of composition may serve for pictures which are limited to two dimensions, and also for those extending into the third. Thus the triangle may indicate a pyramidal form in the vertical plane, or it may indicate a vista receding into the distance.

The Purpose of Pictures. In the middle ages painting was fostered by the church as an educational instrument. Most people were unable to read, and pictures seemed a convenient medium for impressing upon them the incidents of sacred history, or legends of saints and martyrs. Allegorical figures of virtues and vices and representations of hell and heaven were also considered good for people. Painting, then, was encouraged officially for the sake of some religious or moral lesson to be taught. Its purpose was illustrative and narrative. Later, with a growing mastery over technique, interest in form and color for their own sake began to rival the interest in literary meaning, and with the spread of learning and of methods of communication the necessity for narrative meaning in pictures began to disappear. Furthermore the Renaissance favored the use of pagan themes and models in art, and this tended to absolve painting from its religious traditions. The convention of painting in figures still persisted with the old Italian masters, but different purposes began to define themselves. Figure painting, like sculpture, is able to express feeling by showing the human being in the actual attitudes of emotion, and hence it

will always remain as one method of expression in painting. But painting as it developed began in some of its phases to make a less literal type of appeal to the emotion of the spectator, and to arrive at its effects, not so much by representative means as by relationships of color, light, line, and mass and the portrayal of other than human forms. The human form ceased always to dominate the canvas. The purpose of the artist was still to strike the interest and stir the feeling of the spectator, but whereas the medieval painter strove to convey a rather specific meaning, the modern artist leaves the telling of incidents and stories out and tries to appeal to emotions on the basis of pure form and color. The meaning of the medieval pictures was particular and narrative, whereas the meaning of modern work is general and emotional, — a meaning which is intrinsically connected with colors and lines.

The "Broad" Style. The broad or grand style consists in painting the large or significant aspect of a subject, and omitting the trivial and irrelevant detail. One paints the characteristic features — gives the idea and refuses to obscure this by petty additions and qualifications. Painting is often set down as the most imitative of the arts, but in proportion as it shows artistic thought it shows a working away from any literal or scientific intent. Visual impressions come to us ordinarily in the block and we have to do some mental analyzing and sculpturing before we can disentangle the significant and artistic impression. Painting broadly, is one aspect of the attempt to paint meaning rather than fact, that is, to paint a thing because it is emotionally significant rather than because it happens to exist.

The Portrait. It seems at first thought as if portraiture were a field in which painting ought to be exact in imitating a model. Here, surely, if anywhere, we want a likeness. But what, then, do we mean by a likeness? There are many points about the faces of friends that we never notice until we look at photographs of them. Now these points, though in a sense real, do not always clarify the likeness; they rather tend oftentimes to obscure it for us. We think the photograph wrong, and if we think so, then, artistically, it is wrong. What we want is not the "real," but the characteristic likeness. A face may be characterized by a few lines, and lines even which do not actually occur in the face itself. Certainly this is true in caricature. It is even thinkable that, if characterization is what we are after, somebody else's face might be a better likeness of a man than his own. Whether we are ready to credit that or not we must admit that in portraiture, as elsewhere in art, it is significance rather than fact that is really wanted. Here another and more difficult question presents itself. Just what aspect of a person is most significant? Is it individual character or typical character that we really want? Greek art, judging from its sculpture, was more occupied with the typical, or even the general, than with the individual. It adopted facial conventions which it imposed even upon portrait statues; yet the faces of Greek statues are not wanting in character. Each one partakes of the strength and perfection of the general type. Japanese art is also interested in typical, not individual, faces; and yet to those who are familiar with real Japanese faces the pictured ones are said to be full of characterization. That face

is certainly in one sense most significant which most thoroughly represents a class; it means more than itself, and introduces us to a bigger human group. A person who is completely anomalous or untypical does not command permanent interest, but one who, though perhaps surpassing others, yet partakes of their nature, is always interesting. Hearn, writing about faces in Japanese art says that "A partial explanation of the apparent physiognomical conventionalism in Japanese drawing is . . . that law of the subordination of individualism to type, of personality to humanity, of detail to feeling."

The modern western mind, in accordance with its different philosophy, makes a different demand in its portraiture. The successful portrait we think, must present a well-defined personality, there must be an individual residuum in the face which distinguishes it from the type. It is this personal and unknown element which makes part of the mystery and fascination of great portraits. But we should not make the mistake of supposing that the purely individual face will do. What we want is a face unique and typical at the same time. These two things are not at all incompatible; we have a supreme example of their combination in the Mona Lisa. Leonardo had an amusing formula for representing the female type. "Women," he says, "are to be represented in modest and reserved attitudes, with their knees rather close, their arms drawing near each other, or folded about the body; their heads looking downwards and leaning a little on one side." This seems a little naïve from the painter of Mona Lisa, and yet such definite conventions

have their use. They are the outlines of type and the occasion for individuality. With *Mona Lisa* her very conformity to convention and to type is one of the things that makes her so subtle and so fascinating.

Landscape. From portraiture to landscape is a step from the most personal to the most impersonal subject matter. In modern art, landscape is clearly differentiated as an independent type; but in medieval and renaissance art there was no such separation of landscape from portrait and figure painting. The cause for the change must be sought, in part at least, in the modern tendency towards specialization, a tendency which underlies also the scientific attitude. The scientific mind aims at an exact record of particulars rather than a comprehensive speculation on the universe; and the scientific temperament is reflected in painting when the artist confines himself to some one phase of nature, instead of putting everything on the same canvas. Art is never scientific in the sense of caring for literal accuracy, but it is scientific in the sense of being willing to limit itself to some one aspect of experience. The single impression, the individual moment, fragments of experience, have an independent validity for the modern mind. Fleeting appearance is precious, and a glinting light on a haystack may make as significant a picture as the everlasting hills.

Another impetus to the development of landscape painting may be traced to the reaction against the conditions of a crowded civilization. For many persons solitude is a great want; they need a refuge from human-kind. A good landscape has the power to absorb the observer and to unite him with impersonal, elemental, and universal

things. It puts him into a surrounding where social convention has no meaning, and with the loss of social consciousness a large measure of self-consciousness disappears.

The chief excellence of landscape lies in the feeling which it gives for atmosphere and space. Figure painting can show more wonderful line, pure design more splendid color, but neither of them can rival landscape in giving heights and breadths and depths of distance. The third dimension is very important in this kind of painting. It is not introduced for the sake of making natural objects in a picture look natural; one would probably come nearer the truth in saying that natural objects were introduced for the sake of rendering the third dimension. The desire for the third dimension is the desire for depth and emptiness of space, not the desire to realize the bulk of objects. A treatment which makes an object "stand out" from the canvas is abhorred by all art critics. If we want to see things stand out from their backgrounds we can go to stereoscopic pictures, with their unmitigated realness, but not to good painting. Lee and Thompson write on this distinction as follows:¹ "Whereas we ask from painting for an increased realization of distance, because we enjoy going into the picture, we ask, on the contrary, for a lesser realization of bulk than we obtain normally when walking about. For when we look at objects which we perceive to project forwards, we are obliged to begin with a sudden high inspiration which is fatiguing, and we therefore prefer that in pictures the projections should be flattened, and that we should be

¹ Op. cit.

separated by a sort of neutral space from the objects which would otherwise bulge towards us. The greatest pictures are always rather flattened."

A part of the pleasure which real distance affords is due to the fact that the eye-muscles are more relaxed when accommodated for a distant scene. A part also is due to ideational elements, notions of openness, airiness, unhindered movement, etc. Thus our enjoyment is the result both of sensation and idea. Now with the painted distance the pleasure seems to come from idea alone (abstracting of course from the pleasure in pure color and line), but it would be interesting to know what part is played by the relaxed accommodation which was actually present in looking at the real scene. It may be (1) that it plays no part at all, (2) that it is merely thought of when we look at the painting, or (3) it may be that the suggestion of distance tends to induce an actual relaxation of the accommodation muscles, and so to put the eyes out of focus for the picture itself. This would be a problem for experimentation.

The emotional effect of landscape is described by Berenson as a religious feeling. He writes:¹ "Space-composition . . . woos us away from our tight, painfully limited selves, dissolves us into the space presented, until at last we seem to become its permeating, indwelling spirit. In other words, this wonderful art can take us away from ourselves and give us, while we are under its spell, the feeling of being identified with the universe, perhaps even of being the soul of the universe . . . this sense of identification with the universe is of the very

¹ "Central Italian Painters of the Renaissance."

essence of the religious emotion . . . The religious emotion . . . is produced by a feeling of identification with the universe; this feeling, in its turn, can be created by space-composition." To this rendering of space, rather than to the figures themselves, he ascribes the religious effectiveness of Perugino's pictures. Whether one would describe the appreciation of landscape beauty as religious in quality depends, we may suppose, upon the observer's temperament and habits of thought. Certainly the feeling for great spaces tends to abstract one from personal and social feeling, and it permits reverie and the indulging of one's characteristic mood, whether religious or not.

The Arabesque Conception of Painting. We have mentioned two classes of subject—the portrait and the landscape—which are characteristic of modern painting, and yet perhaps the most characteristic thing about modern painting is the tendency to minimize the importance of any special subject. Whether a picture expresses a personality, or stirs religious emotion is less important than whether it makes an agreeable impression of line and mass and color. The subject matter is, after all, only the occasion for a design or pattern, and the painting is to be judged by standards similar to those that apply to arabesque ornaments or Persian carpets. (Someone speaks of this as the "Persian-carpet-idea" in painting.) This is to say that a picture is to be judged strictly by its face value.

This view of art is favorable to the colorists; for they try to bring their art nearer the abstraction of pure design, or of the musical art. They would agree with Pater

that "all art constantly aspires towards the condition of music." This means for the painter that condition in which the hue, brightness and saturation of a color are determined only by the question of harmony with other colors, and not by any question of imitative accuracy. The names which Whistler gave his compositions as "Nocturne in Blue and Gold," "Harmony in Gray and Green" sufficiently indicate his concurrence in this ideal. Some of Brangwyn's canvases look at a little distance like surfaces of colored marble strongly mottled with lovely tints. The spectator is supposed to enjoy such painting as he would an arabesque,—for the sake of what it intrinsically is, its immediate impression.

Such a conception of art is in some ways indifferent or antagonistic to the rendering of the third dimension. A picture is essentially a thing of two dimensions; as an art medium it consists of colors applied to a single plane or surface. Any composition which is conspicuously characterized by depth or bulk is, therefore, an attempt to get away from the fundamental condition of the art, but whatever makes an interesting composition in two dimensions is conspicuously adapted to it. A truly picturesque subject does not need any strong suggestion of depth to make it attractive. Japanese art has, as Simmel expresses it, "renounced" the third dimension. Whistler's work is like the Japanese in a certain agreeable flatness of effect. The figures or elements of the picture are all associated in one plane instead of advancing or retreating from one another, and the spectator feels that there is a certain fitness and reserve about the way they

keep to their plane. Perhaps not a little of the grace, refinement and distinction attained by Whistler and the Japanese depends upon their adherence to this first condition of their art.

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CHAPTER XIV

LANGUAGE AS AN ART MEDIUM

Literature and the Other Arts. In discriminating the arts from one another we must ask of each what advantage it has as a medium of expression for emotion. Language as an instrument of expression is more flexible and dynamic than pictures and statues; for they show one phase of an action, but words may narrate the whole course of it. Language is more exact than music, for it can convey specific reflections and definite situations from real life, as music cannot. In representing human emotion language has the prime advantage of being able to render literally the speech of the person. Painting can give the visible appearance, music the intonations; but language alone can give the exact thought and utterance. Yet literature is somewhat lacking in the way of direct sensuous appeal when compared with the other arts. It stands on a different footing. Linguistic symbols are generally thought of as merely vicarious, having no virtues and few charms of their own, but gathering all their value from the ideas which they stand for. Literature is comprehensive in appealing to all the senses. But it does so in a mediate and reflective way, and it is not always easy to feel, except with the most musical syllables, that literature fits in with that definition of art which makes art the manifestation of the idea to sense.

Sensuous Content in Language. All language has, nevertheless, a sensuous aspect, since it must be expressed by muscular movements and apprehended by vision or hearing or touch. Yet what language attempts really to do is to suggest things not present to sense, the sensuous element being for the most part different in kind from the sensuous content of the thing meant. The word "red" does not give a sensory stimulus of red color. (The exception is in the onomatopoetic or imitative words which sound like what they mean; words like slap, bang, buzz, whir, boom, etc.) But though language does not literally give the sensuous object which it represents, yet artistic language may suggest it with peculiar vividness, and thus make some approach to the intensity of the actual sensuous impression.

The opportunities for direct sensuous effect in language lie in the varieties of rhythm and in intrinsic beauty of sound. Certain syllables and words are pleasing whether they have any specific meaning for us or not. In proportion as one becomes absorbed by the sound and rhythm rather than by the signification, language approaches the condition of music. This musical quality is most apparent in poetry, but is no less present in good prose.

Language and Thought. The question whether thought can go on independently of language is an important one for our purpose. If, by language, we strictly mean articulate sentences, then it is pretty clear that a good deal of thinking does go on without it. The more characteristic part of a sculptor's thought goes on in imagery of mass and line; a painter thinks in colors,

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and a musician in tones and musical phrases. All these images can be compared, analyzed, and rearranged without verbal signs. The thoughts of artists must, indeed, be carried on largely in terms of their respective media of expression. When, however, the discussion is limited to thought which is adapted best to linguistic expression the question is more difficult.

It is not an uncommon thing to assume, whether consciously or not, that language is merely a subordinate of thought, simply a method of transferring from one person to another a thought which is complete and independent of the fact of transference. It is often said that the purpose of good style is to 'let the thought shine through' and that, therefore, 'clearness' is the chief virtue of style. This metaphor of shining through, as though thought were poured into its medium and bottled up there, is misleading. Language and thought have a more intimate connection than that. When we have made an adjustment between our purpose and the language to convey it, i.e. when we have found the one word or form of words which we mean,—then we have become "clear," but then we have also identified our thought with its linguistic expression. Thinking, at least thinking which is complex and long sustained, does not first get done and then get translated into becoming words, but the words help the thought along as much as the thought helps us to the words. In artistic composition the thought and the words are one, the language is the idea.

To put the matter in another way, let us recall that one of the principal types of mental imagery is the imagery

of words. Many persons remember and fancy, infer and purpose, in verbal terms, and even feel to an accompaniment or refrain of words. These persons would be as incapable of thinking without language as would the visual-minded person without visual images. The influence of the verbal image upon the power of discrimination (that most fundamental of all mental acts), has been brought out under experimental conditions by F. Angell. He found that the process of sensory discrimination is rendered more accurate with some observers if they attach a verbal description to the impression, — a clang, or a shade of gray, — which they are comparing with other like impressions.¹

Figurative Language. The use of figures, or, to be accurate tropes, like metaphor, simile, personification, etc., is one of the chief distinctions of literary as against scientific forms of writing. Tropes are sometimes spoken of as if they were merely ornamental, whereas, in fact, they are essential parts of literary thought. The essential idea in tropes is the essential idea in any judgment and in its linguistic expression. Something is said to be something else. A predicate is stated or implied about a subject; it shows some mode of conceiving the subject, some comparison of it to another thing. When the mode of conceiving the subject is well established, or when it is capable of definite elaboration and exact proof, then we have a scientific statement; but when the comparison or the mode of conceiving is new, and not destined for further definition or proof, we have literary statement. This distinction

¹ "Discrimination of Shades of Gray for Different Intervals of Time." *Phil. Stud.* xix.

will not always hold; but in general it is true that literary comparisons are suggestive, and scientific ones definitive. Poetic thought often initiates a comparison which is then taken up by scientific thought and reduced to a critical restatement. It is proper to think of literary, and especially poetic thought as being the warm emotional beginning of knowledge and fact. It is full of half-divined suggestions. "Passion itself," Goldsmith says, "is very figurative." Critical thought is the reduction of tropes to facts, and the process involves amplifying some, cutting down others and perhaps throwing away still others. Buck has stated the matter as follows: "It is impossible to see why language in its infancy must be metaphorical, and why, as it develops, these early metaphors must 'die,' that is, become plain statement, except under the hypothesis that *figures represent a necessary intermediate stage in every completed process of thought.*"¹

¹ "Figures of Rhetoric: A Psychological Study." Contributions to Rhetorical Theory. — Ed. Scott.

CHAPTER XV

POETRY

Definition. One definition of poetry (Watts) ¹ says: "Absolute poetry is the concrete and artistic expression of the human mind in emotional and rhythmical language." We may accept it without question that poetry is generally more emotional and regularly rhythmical than prose. But it seems fair to go rather moderately on the subject of the concrete. Much of the poetry which expresses philosophic and moral conviction, as in Wordsworth, Tennyson, Arnold, Browning and George Meredith, would be no poetry at all if this criterion were rigidly applied. I think one may be justified in contending that an abstraction may be as vivid and emotional as a concrete thing. If, indeed, art is typical and not merely specific, a certain degree of generalization should be essential to a poetic theme.

Another definition (Mackail) ² is as follows:

"In general, the essence of poetry as an art is not so much that it is rhythmical (which all elevated language is), or that it is metrical (which not all poetry is, except by a considerable extension of the meaning of the word), as that it is *patterned* language. This is its specific quality as a 'fine art.' The essence of 'pattern' (in its technical use, as applied to the arts), as distinct from

¹ "Poetry." Art. in Cyc. Britannica.

² Murray's English Dictionary.

'composition' generally, is that it is composition which has what is technically called a 'repeat'; and it is the 'repeat' which technically differentiates poetry from non-poetry, both being (as arts) 'composition.' The 'repeat' may be obvious, as in the case of rhymed lines of equal length, or it may be more implicit, to any degree of subtlety; but if it does not exist, there is technically no poetry. The artistic power of the pattern-designer is shown in the way he deals with the problem of 'repeat,' and this is true of poetry likewise, and is probably the key (so far as one exists) to any technical definition or discussion of the art."

In adopting the conception of a 'repeat' and making it, rather than rhythm, the test of poetry, Mackail does justice to such important elements as rhyme, assonance, the refrain, and the repetition of phrases, and also to the poetry of certain compositions which have no rhyme and no strictly measured rhythm. Such a composition is the Litany of the English Book of Common Prayer. For example:

"Remember not, Lord, our offences, nor the offences of our forefathers; | neither take thou vengeance of our sins:
| spare us, good Lord, | spare thy people, whom thou hast redeemed with thy most precious blood, | and be not angry with us for ever. | Spare us, good Lord," etc. This is written for prose, but it may well be taken for six lines of poetry. Though there is no rhyme and no meter, there is an obvious pattern, and indeed the whole of the litany is an uncommonly good illustration of the use of a 'repeat.'

Mackail's statement is made in terms of the formal

side of poetry, but it contains the key to the other side as well. If we are asked what ideas or themes or states of mind are poetical, i.e., what properly lends itself to patterned language, we may answer that strong emotional states are things which stimulate the repetition of words and phrases. It is often said that emotion is naturally expressed in rhythmical language, but it is probably better to say that emotion naturally expresses itself in repeating language, which then becomes rhythmical. Emotion is intense and insistent, and the person who feels it sometimes harps upon a question or exclamation which has occurred to him until the form of words becomes a "burden." At this point rhythm is likely to appear; that is, emotional exclamations tend to become rhythmical because of being oft repeated.

Another characteristic of poetry is suggested in Gummere's statement that¹ "Poetry uses tropes *consciously, boldly, and systematically*; restores, as far as it can, color and freshness to language, and vividness to expression." Poetry expresses thought in that earlier and more imaginative stage of which we have spoken.

The Ballad. The early communal ballad was a song sung by a crowd as an accompaniment to its dancing. The matter of the song was some narrative which had a popular interest. It was a direct and simple account of primitive objective happenings — births and deaths and battles for the most part. One person would sing the narrative parts of the poem, the crowd taking up at regular intervals some chorus or refrain. The authorship of the poem was unknown. The ballad usually goes

¹ "A Handbook of Poetics."

briskly; deeds are crowded close, and the singer "up and tells" them out with the greatest directness. The form of the ballad is suited to its sense; the rhythm and the diction are strong and simple, and often crude. In the following stanzas the story "gets off" quickly, and is simply and objectively told:

The Percy out of Northumberlande,
And a vowe to God mayd he
That he would hunte in the mountayns
Of Cheviot within days thre,
In the magger of doughty Douglas,
And all that ever with him be, etc.

There lived a wife at Usher's Well,
And a wealthy wife was she;
She had three stout and stalwart sons,
And sent them o'er the sea, etc.

The modern reader is captivated by the directness and simplicity with which the old ballad begins, but it sometimes happens that the modern reader becomes wearied as the ballad proceeds and he perceives that it has no other resource of manner. We require more variety of form, partly, no doubt, because we omit the diversion of dancing to the words.

The modern ballad, which is the work of one author, is modeled in substance and form after such early songs as the above, but it often admits more of the subjective and personal element, and is frequently more finished in rhythm and diction. It is properly classed, therefore, as a kind of lyric.

The Lyric. It is common to say of lyric poetry that, in distinction from epic and dramatic poetry, it is more

song-like in form and more subjective and personal in theme. The lyric is expressive of the poet's own feeling and thought. The epic and drama are more concerned with circumstances; they treat of doings and events. The lyric also differs from them in length, being commonly much shorter than they.

The lyric differs from the early ballad in several points. Whereas the ballad is a narrative poem and recounts the actions chiefly of persons, the lyric, as we have said, aims at presenting a mental state. The emotional reaction which the lyric celebrates may be occasioned by a person or it may be roused by a bird, a flower, a brook, — anything. A lyric is more likely to take the form of exclamation, as in *The Bells*:

What a world of merriment their melody foretells!

or of apostrophe, as in

Hail to thee, blithe spirit!

or of question, as here:

Bards of passion and of mirth,
Ye have left your souls on earth!
Have ye souls in heaven too,
Double-lived in regions new?

The lyric is more personal; no ballad would begin like this ode of Keats

My heart aches, and a drowsy numbness pains
My sense, as though of hemlock I had drunk.

And, finally, the ballad deals with specific things, whereas the lyric may state a general truth, or a law of feeling or

thought. A generalization like the following is sufficiently lyrical, but is thoroughly unballad-like:

Music, when soft voices die,
Vibrates in the memory, —
Odors, when sweet violets sicken,
Live within the sense they quicken."

The Epic. The epic is a metrical narrative which treats of the deeds and adventures of heroic persons of history or tradition. It is lofty in character and endless in length. The recital in poetic form of heroic actions and historical events is the survival of an ancient practice rather than the answer to a modern need. When history was preserved by oral tradition, to have it cast in poetic form may have been an important mnemonic convenience; for we know that the burden of memorizing is lightened by the employment of rhyme and rhythm. Probably another reason for the continuance of such poetic form was the primitive taste of the listeners: it requires a mature taste to discern good prose; whereas the art of the poet is more readily appreciable by the general run of hearers. With the introduction of written records, however, and with the modern exactions as to accuracy and fullness of detail, the epic narrative as a means of historical instruction became quite out of date. History has become scientific and, like other scientific information, finds its most adequate expression in prose.

The epic poem as a means of entertainment is defective by reason of its length. Poe has argued that a long poem is a contradiction in terms. He says that a poem, in order to deserve the title, must rouse a certain degree of excitement, and that such a degree is necessarily transient

and cannot be maintained throughout a composition of any great length, i.e., one that takes more than half an hour to read. Therefore, though we may read an epic continuously, we can enjoy it only in spots. We enjoy it as a series of shorter poems, not as a unified whole. In addition to Poe's argument there are other reasons why poetic composition should not be long sustained. Poetry, whether spoken aloud or read in silence, is primarily intended for the ear, and the silent reader, if he really appreciates the music of the lines, must let the auditory imagery ring in his mind. This process of sounding the words, either literally with the voice or in one's mind, takes more time than does the silent and purely visual method of reading. Hence poetry should take more time than an equal amount of prose such as can be adequately appreciated by visual images alone. Then, again, the rhythms of poetry are quite strictly measured, and when the rhythmic units — feet, verses, stanzas — are repeated over and over, they eventually become monotonous. Prose, on the contrary, with its free and ever-varying rhythm, is the appropriate medium for long compositions. Though much of the world's noblest literature is in the epic form, it must be admitted that these poems are, as Poe suggests, enjoyed piecemeal. The epic as a whole is universally respected, but not very widely read.

The Drama. The drama as a representation of action and of character has attained a status as an independent art-medium; it need no longer be classed as a form of poetry. The contemporary drama is regularly in prose. Even drama which is written in metrical form is not

really apprehended by the hearer as a poem. The lines are so broken into and reorganized by the action that the rhythmic flow is often lost except in the extended passages delivered by a single speaker. The poetry, when we get it, may lend great beauty to the dramatic impression, but it comes, as in case of the epic, in divided parts. These parts are often lyrical in character and would make a complete work of art in themselves, quite independently of their dramatic setting. In modern practice, then, poetry and dramatic writing are entirely separable arts. Some characteristics of the drama will be discussed in the next chapter.

Rhythm as a Means of Expression. The task of the poet is to see that his meaning is expressed not only by the words he uses, but by the rhythmic form in which they are arranged. Different rhythmic schemes have distinctive emotional character, and it is just as important to get the right rhythm for the idea as it is to get the right words.

Trochaic measure, as we saw in an earlier chapter, has a more unpremeditated and independent effect than iambic. It predominated in early English poetry. We may regard it as the most impetuous and direct of rhythmic forms. Among good examples of its proper use are the following:

Haste thee, nymph, and bring with thee
Jest, and youthful Jollity, —
Quips and cranks and wanton wiles, etc.

Also George Herbert's impetuous prayer:

Throw away Thy rod,
Throw away Thy wrath;
O my God,
Take the gentle path, etc.

And Shelley's "Serenade":

I arise from dreams of thee
In the first sweet sleep of night, etc.

All three of these, though different in sentiment, are yet enough alike to be appropriately expressed in trochaic measure. The next two illustrations show a change from iambic into trochaic measure as the thought changes from narrative into direct exclamation or address. The first is from Ingelow's "High-Tide on the Coast of Lincolnshire":

I sat and spun within the doore;
My thread brake off, I raised myne eyes:
The level sun, like ruddy ore,
Lay sinking in the barren skies;
And dark against day's golden death
She moved where Lindis wandereth, —
My sonne's faire wife, Elizabeth.

"Cusha! Cusha! Cusha!" calling,
Ere the early dews were falling,
Farre away I heard her song.
"Cusha! Cusha!" all along, etc.

The other example is from Burns's "Bannockburn":

But soon the sun broke through the heath
And lighted up that field o' death,
When Bruce, wi' saul-inspiring breath,
His heralds thus addressed: —

Scots, wha hae wi' Wallace bled,
Scots, wham Bruce has aften led, etc.

A patent misuse of the trochaic may serve to bring out the point also. Shelley writes of death:

Death is here, and death is there,
Death is busy everywhere.
All around, within, beneath,
Above, is death, — and we are death.

This gloomy thought, it will be observed, is given the same meter which is so aptly used by Milton in

Come! and trip it, as ye go,
On the light fantastic toe.

Iambic measure, which is more graceful and flowing than trochaic, is more slow and even than trisyllabic measures. It is suited to a variety of purposes, and has become the standard in English verse. As we have just seen, it is felt to be appropriate to the purpose of narration. It is not inappropriate to bright and gay sentiment, as in Wordsworth's "Daffodils." But iambic is even better adapted to ideas which are quiet, dignified and even melancholy. At least no other rhythm could so well harmonize with such lines as these:

And sweet it was to dream of Fatherland,
Of child, and wife, and slave; but evermore
Most weary seemed the sea, weary the oar,
Weary the wandering fields of barren foam, etc.

or these:

Will no one tell me what she sings?
Perhaps the plaintive numbers flow
For old, unhappy, far-off things,
And battles long ago.

Iambic meter may, of course, be gaily and rapidly read, but its proper beauty comes out best with a moderate rate. Dabney writes:¹ "Generally speaking, we might . . . characterize the 2-beat rhythm as the medium of the *Poetry of Reflection*; and the 3-beat rhythm as more specifically the medium of the *Poetry of Motion*." He is quite right to say so of iambic meter certainly; but trochaic measure, though relatively slow, is impulsive rather than reflective.

Dactylic measure, because of its initial accent, partakes of the impatient and rugged nature of the trochee, but the dactyl is more complex, since it balances a strong beat by two light ones. It is more rapid than the trochee, and hence better adapted to express eagerness and quick motion. In Scott the dactyl has a martial roll:

Pibroch of Donuil Dhu,
Pibroch of Donuil,
Wake thy wild voice anew,
Summon Clan Conuil.

Or in

Hail to the chief who in triumph advances!
Honored and blest be the evergreen Pine!

Tennyson uses it for a similar effect in the "Charge of the Light Brigade." In the following couplet from Shakespeare the dactyl has a rippling movement:

Merrily, merrily shall I live now
Under the blossom that hangs on the bough.

¹ "The Musical Basis of Verse."

In Longfellow's "Challenge of Thor" it lends itself to a fine swagger:

I am the God Thor,
I am the War God,
I am the Thunderer! etc.

Swinburne, perhaps, has made the most brilliant success of dactyllic meter. He employs it in "The Hounds of Spring," but varies it freely with anapests:

Come with bows bent and with emptying of quivers,
Maiden most perfect, Lady of Light,
With a noise of winds and many rivers,
With a clamor of waters, and with might;
Bind on thy sandals, O thou, most fleet!
Over the splendor and speed of thy feet!
For the faint east quickens, the wan west shivers,
Round the feet of the day and the feet of the night.

The anapest and the amphibrach have each something of the rolling quality of the dactyl. The anapest is dashing and gallant, as in Byron:

The Assyrian came down like a wolf on the fold,

or as in Scott's "Lochinvar." The amphibrach has rather less of hurry; for, if it is read rapidly, it tends to pass over into dactyllic measure. Arnold's "Forsaken Merman" has it in places:

But, children, at midnight,
When soft the winds blow,
When clear falls the moonlight,
When spring-tides are low, etc.

These lines give more the impression of a gentle rocking motion than they do of onward haste. Amphimacers are

also slower and more deliberate than dactyls and anapests, and are somewhat hard to sustain, unless a long pause is introduced between the feet, as in the following:

Sweet and low, sweet and low,

Sleep and rest, sleep and rest.

Poetic rhythm is formally divided not only into feet, but also into lines or verses, and the expressive effect is varied by the length of the verse through which the thought is carried. A short line is fitted to give sparkle and verve, a long line, weight and dignity. In this:

Tell me where is fancy bred,
Or in the heart, or in the head?

And this:

She is a winsome wee thing,
She is a handsome wee thing, etc.,

we feel that the prettiness and daintiness would be quite changed if the verses were lengthened out. The standard length for English verse is the iambic pentameter, this being the chosen measure of Chaucer and Spenser, Shakespeare and Milton. The five-foot verse is long enough to be sonorous, and short enough to be coherent, that is to say, unified into a single whole. Having an odd number of feet it cannot break in the middle as longer lines of six and eight feet do. In Swinburne's "A Word with the Wind," however, the long lines are kept unbroken by their meaning:

Lord of days and nights that hear thy word of wintry warning,
Wind, whose feet are set on ways that none may tread,
Change the nest wherein thy wings are fledged for flight by morning,
Change the harbor whence at dawn thy sails are spread.

Here both the seven-foot and the alternating six-foot lines are successfully sustained; but verses of this length are difficult.

Verses, in their turn, are units in larger patterns, such as the couplet, the triplet and the stanza of four or more lines. The rhythmic design of these larger wholes may be almost infinitely varied. A four-line stanza, for instance, might have all its lines of equal length and identical rhythm; or it might have them arranged as long, short, long short; or long, short, short, long; or long, long, short, long, etc., etc. With a larger number of lines of course the variations are greatly multiplied. A skilful use of stanzaic pattern is perhaps more difficult than the proper use of rhythmic feet. It is interesting to notice how the same rhythm may be developed in the stanza by different poets. This stanza from Hood is a good example of the rhythm of the stanza; there is the rhythm of the dactyls combined into the larger rhythm of long verse, short verse, long verse, short verse:

One more unfortunate,
Weary of breath,
Rashly importunate,
Gone to her death!

In the following stanza from Dobson we get the same form incorporated into a larger whole:

Here in this leafy place,
Quiet he lies,
Cold, with his sightless face
Turned to the skies;
'Tis but another dead; —
All you can say is said.

The first four lines of this are a coherent whole, and so are the last two lines, and these two parts are balanced off against one another. When, therefore, this arrangement is repeated, as it is in the remaining stanzas of the poem, it creates a recurrent variation of form which, if it came rapidly enough, could be considered as a larger form of rhythm. Another step in the development of this same stanza is given in Swinburne's "Off Shore":

As my soul has been dutiful
Only to thee,
O God most beautiful,
Lighten thou me,
As I swim through the dim long rollers, with eyelids uplift from the
sea, etc.

Here the line at the end of the stanza is a long, slow ebb which balances the onward rolling movement of the first four lines. It saves the poem from the monotony and jerkiness which come of too many short lines, and it forms a more adequate contrast to the first part than Dobson's final couplet gives.

In the following extract from Lanier's "Marshes of Glynn" there is an interesting harmony between the form of the stanza and its meaning:

And the sea lends large, as the marsh; lo, out of his plenty the sea
Pours fast; full soon the time of the flood-tide must be:
Look how the grace of the sea doth go
About and about through the intricate channels that flow
Here and there,
Everywhere,

Till his waters have flooded the uttermost creeks and the low-lying
lanes,

And the marsh is meshed with a million veins,
That like as with rosy and silvery essences flow
In the rose-and-silver evening glow, etc.

There is wonderful propriety in the gradual swelling and subsiding of these lines, and in the very form of the stanza the flowing of the sea is insinuated.¹

Rhythm of Interest. A poem composed in formal rhythm of feet, verses and stanzas may have in addition to these a fluctuation of emphasis which depends upon the meaning of the words. Take these two lines:

While my little one, while my pretty one, sleeps,
and

Sleep, my little one, sleep, my pretty one, sleep.

In the formal scheme of the poem these two lines are similar and might be expected to have the same rhythm; but because of the difference in meaning the first would naturally be read in this way:

$\underline{\quad} \sim \underline{\quad} \sim \mid \underline{\quad} \sim \underline{\quad} \sim \mid \underline{\quad}$

¹ The student, of course, understands that the "form" of the stanza means the auditory, not the visual, form. There is a class of poems in which the lines of the printed page take the visible shape of the object described in the verses. E.g., in Herbert's "Easter Wings":

Lord, Who createdst man in wealth and store,
Though foolishly he lost the same,
Decaying more and more,
Till he became
Most poore:
With Thee
O let me rise,
As larks, harmoniously,
And sing this day Thy victories:
Then shall the fall further the flight in me.

Such a fanciful performance does not add anything to the literary or artistic merit of the poetry, because the appearance has nothing to do with poetic form.

and the second this way:

|| ~ | ~ ~ | || ~ | ~ ~ | ||

In the opening lines of "Paradise Lost" there is a noteworthy instance of the formal divisions of the poem being absorbed by the division according to meaning:

Of Man's first disobedience and the fruit
Of that forbidden tree, whose mortal taste
Brought death into the world and all our woe,
With loss of Eden, till one greater Man
Restore us and regain the blissful seat,
Sing heavenly Muse, etc.

The formal pause would come at the end of each line, but the rhythm of interest moves on with a larger stride. The first five lines give the effect of a chant, crowding a "world of words" on its reciting note. Then when it comes to "Sing heavenly Muse" every word of this phrase rings out with the energy which had been gathering in all the preceding lines. The vigor of this phrase balances the length of what goes before it.

The opposition between the formal metrical scheme of a poem and the rhythmic division suggested by the meaning is called by Lewis the law of conflict. He writes of it as follows:¹ "There is . . . an ideal rhythmic scheme. The actual movement of the verse does not exactly correspond with this ideal scheme; it plays all about it, swaying back and forth like a pendulum, perhaps, now behind and now ahead of the ideal; but it never wholly forsakes it. The pleasure which verse gives to an educated taste is partly due to this perpetual conflict

¹ "The Principles of English Verse."

between the actual and the ideal. Sometimes, for a while, the verse moves in even step with the ideal scheme, but surely sooner or later it breaks away; the poet's language, or the feeling stirred by his thought, proves a little too strong for our rhythmical instinct, and escapes from the fetters; but the instinct has not been quelled and it speedily asserts itself again."

We may say, then, that the rhythm of form and the rhythm of significance act in much the same way as two parts in music, stimulating opposed impulses and hence an emotional reaction.

Rhyme. Rhyme is the likeness between the terminal sounds of words. One word rhymes with another, in the strict sense, if the last accented vowel and everything that follows it are identical in sound. Thus, *jain* and *reign*, *tenderly* and *slenderly*. Rhyme is not an essential of poetry, but it has important uses. It is intrinsically agreeable, and is welcome, therefore, as a purely sensuous charm. It has, besides, a function in unifying the stanza and in facilitating its movement.

The simplest rhyming plan is a succession of couplets. The two lines are bound together by the identity of their final sound, and that is the whole story; there is no suspense of intervening lines, no tax on the reader's attention in this respect. This plan is appropriate to a peaceful poem like "The Deserted Village," where an impression of simplicity and tranquillity is desired. It is also well suited to rapid narrative, but for a different reason. Thus in a poem like "Lochinvar" the couplet is good because it gives the least possible "back-stepping" to the movement. When the couplet is completed it is

end of a verse. The pause must be lengthened where there is no rhyme, i.e., the rhyme seems to take the place of a long interval. This means that a rhymed poem naturally moves a little faster than blank verse. It is interesting in this connection to recall Shakespeare's use of the rhymed couplet at the end of his scenes. The speaker, by this device, carries himself off the stage with a rhyme.

Alliteration and Assonance. Alliteration is the repetition of like sounds at the beginning of words which stand next or near one another. It is sometimes called initial rhyme. Examples are:

The long light shakes across the lakes.

And, also, the following, in which whole words rhyme, but at the beginning of the verses:

Nightly on the path that sped them
Brightly shone the star that led them.

Alliteration was the regular use in early English poetry, but in modern poetry it has given way to end rhyme, and is now sparingly used except by a few poets.

Another and subtler beauty lies in the use of assonance. Words which have different consonants, but the same vowel sounds, — i.e., all the vowel sounds beginning with the first accented ones being alike, — are said to be assonant. Thus *moan* and *old*; *merriment* and *eminent*; *dances* and *masses*. Alliteration, assonance and rhyme are merely different forms of repetition. Roughly speaking, they refer respectively to similarities in the first part, the middle part, and the last part of words. It is also common in poetry to find whole words repeated for

musical effect. The following stanza illustrates all four kinds of repetition:

Some for the Glories of this World; and some
Sigh for the Prophet's Paradise to come;
Ah, take the Cash and let the Credit go,
Nor heed the rumble of a distant Drum!

There are other refinements of repetition not covered by the definitions of rhyme, alliteration and assonance. An example occurs in these lines from Swinburne's "A Forsaken Garden":

In a coign of the cliff between lowland and highland,
At the sea-down's edge between windward and lee,
Walled round with rocks as an inland island,
The ghost of a garden fronts the sea.

Here the words "lowland" and "highland" do not rhyme because the accented vowels are not alike, nor, by the same test, are they assonant, neither are they alliterative. Yet they are partially identical and give an agreeable repetition. The same thing is true of "inland" and "island" except that here an imperfect alliteration is present.

The Poetic Imagination is Sensuous. The influence of rhythm, rhyme, assonance, and all tonal beauties of poetry is a direct sensuous influence. There is also an indirect sensuous stimulus in poetry due to the fact that the poet seems to dwell with delight on the sensuous aspect of his thought imagery. The meanings of poetry are more sensuous than the meanings of prose. The familiar example is Keats, who never fails to linger over the elements of color, light, tone, warmth, coolness, touch, taste and smell, as in "The Eve of St. Agnes":

And still she slept an azure-lidded sleep,
In blanch'd linen, smooth, and lavender'd,
While he from forth the closet brought a heap
Of candied apple, quince, and plum, and gourd
With jellies soother than the creamy curd,
And lucent syrops, tinct with cinnamon; etc.

Thus a fullness of reference to elementary sensation is one of the characteristics of poetic as distinct from prose thought.

Poetry and Melancholy. We have mentioned some of the means by which the poet expresses emotion and gives it an agreeable and appropriate setting. It remains to inquire whether one kind of emotion is more fitted than others for poetical expression. Poe says that melancholy is the most legitimate of all the poetical tones. Woodberry writes that sadness prevails in the lyric and in the lyrical temperament. Is there any reason for this? The only explanation that occurs to the present writer is that the supremely beautiful always carries with it so great suggestiveness that the artist and the observer may both feel a sense of painful fullness of meaning. Moreover, one of the characteristics of esthetic consciousness is the absorption of the subject in the object, and it would seem that a complete surrender of this kind is not effected without a pang. This, however, is no more true of poetry than of any other form of art. Whether there is any specific reason why poetry generally, or the lyric in particular, should find melancholy its most legitimate tone would be an interesting inquiry for the psychology of art.

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CHAPTER XVI

THE DRAMA

THE germ of the drama, it is said, is the representation of an action by an action. But since all life is action and not all life is dramatic, we must still ask what sort of action can be adapted to stage presentation. In the first place we are told that there has ~~got~~ to be a struggle of opposing forces (Freytag *et al.*), but here, too, we shall need a further restriction of the term. Every voluntary act implies an opposition of forces more or less serious; indeed, in order to have consciousness at all there must be some interruption in our established habits, and a consequent attempt to reorganize our activities. Every voluntary act or decision, then, represents a conflict of impulses or a struggle between different interests. Now there are a great many such struggles, and some of them most interesting to us all, which would not be in the least suitable for stage production. A moral struggle might be carried on without any perceptible outward sign. A ruler weighing the interest of his country against the advantage of his friends might go through the conflict simply within his own mind, without showing any of the steps by which he comes to his final decision. In order to make a struggle dramatic the opposing forces must be in a manner personified and rendered pictorial, as well. When the conflict is between person and person the case is clear. But even when the case is more ideal,

as a question between patriotism and religion, there must be a personal advocate for the ideal interest. In other words, the stage demands the presence of people, and these people must be working, whether consciously or not, toward opposed ends. Their action also must be such as appeals to the eye; there must be made apparent before us the interaction of mind upon mind.

Writers on the drama point out that not only must there be a struggle, but that the law of cause and effect must be patent in the action. We might put this in another way and say that no action is really presented to us unless both a stimulus and response are exhibited. For instance, we may see *A* walk up to *B* and hit him; but this we cannot accept as a complete action in itself; we do not understand really what the action is until we find out the reason which led to it. If we find that *A* is a bully who simply wanted to pick a fight, that makes it one kind of action; but if we discover that he did it because *B* needed hitting, that makes it another kind. The physical performance may look to be the same in the two cases, but the "act" is quite different. The act is constituted by stimulus and response together. Obviously it is unsatisfactory to an audience to get only one side of an action; to find it significant they must know both the excitement and the reaction. The demand for causality in a play is but one aspect of the demand for unity or coherence.

The Nature of Tragedy. "Tragedy, then," said Aristotle,¹ "is an imitation of an action that is serious, complete and of a certain magnitude; in language embel-

¹ Butcher, "Aristotle's Theory of Poetry and Fine Art."

lished with each kind of artistic ornament, . . . in the form of action, not of narrative; through pity and fear effecting the proper purgation of these emotions." The tragic theme, therefore, must be something pitiful and fearful, something serious and large, something artistic and complete. That which is most pitiful and fearful in our eyes is the sight of human suffering. Those things which are most serious and large are the moral and social laws. We may argue, then, that the most tragic situations are those in which human suffering is seen to be involved in the operation of moral and social law. Woodbridge sums up the essentials of the tragic in three terms: suffering, struggle (the struggle must end in failure) and causality. Suffering alone, she says, gives us pathos, struggle alone gives the heroic, and causality alone the rational. The three together give the tragic.

The tragic hero must be some one whose fate will be significant for many persons, that is, he must be some one who stands in typical relations with his time. In the ancient world a king or military leader would be the fittest material for a tragic hero; because, as we have seen, the ideal of nearly all the men in those days was leadership in politics or in war. In our own time, the choice of a tragic hero is less limited, because there is a greater variety of leadership. But in any case the person chosen must have some kind of power or resource. In a tragic struggle the hero must have a fighting capacity which commands the respect of the audience. Otherwise, as Woodbridge says, the effect of his struggle is merely pathetic, not tragic.

It is often said that in tragedy we must feel that the hero's deed is recoiling upon himself, that his doom is the natural result and just reward for his action. Some degree of guilt is assumed. Now guilt and its punishment are often tragic certainly, but they are not essential to tragedy. Indeed the most poignant tragedies are sometimes just those in which no very severe blame can be put upon the hero, but in which a horrible doom overtakes him for doing that which any one might have done in his place, or for doing nothing blameworthy at all. From the human point of view no real blame can attach to Prometheus or to Antigone. Hamlet had done nothing to deserve the situation in which he found himself, and even Lear's fault was wholly incommensurate with the penalty for it. Not the hero in such plays, but "this sorry scheme of things entire," is at fault. The mistakes of this poor soul and the sins of that one are serious enough, it is true, but what are they to the mistakes and cruelties of natural law? Human nature and human environment are such that insoluble conflicts can arise without malice or evil design on the part of any one. As Meredith says,

I see no sin:

The wrong is mixed. In tragic life, God wot,
No villain need be! Passions spin the plot.

Tragedy, then, shows a clash of forces of the most serious kind; its problems are apparently insoluble, and the suffering of the hero may or may not be the outcome of his own guilt.

The Enjoyment of Tragedy. In the first place tragedy may please us, not because it is tragic, but because

it is dramatic. The dramatic art makes a sensuous appeal which is uncommonly vivid and complex. It not merely appeals to instinct through light, color, and animated movement, but it combines much of the beauty of pictorial composition with that of the spoken words, and sometimes with the beauty of music. The richness of this appeal is certainly well calculated to make the drama the supremely absorbing thing which it is. Also in any dramatic conflict we see human nature on trial, and this seldom fails to attract us.

The points so far mentioned apply, of course, to comedy as well as to tragedy; but there is a reason for taking pleasure, or at least vivid interest, in tragedy as such. Henry Arthur Jones writes as follows about the tragedy of "Prometheus":¹

"We take the keenest delight in reading of his sufferings, because they are not so horrible as his patience and strength and defiance of the tyrant are beautiful; the very cruelty and malignancy of his torments become the measure of our admiration and the levers of our praise. Our shudder of revolt at his sufferings is not so great as our wonder at his dauntless endurance; the physical horror is nothing compared with the spiritual beauty."

The pain and temptation which are brought to bear on the hero are a register of his endurance, and this is true whether he holds out against them, like Prometheus, or succumbs, like Macbeth. In physical experiments the strength of a cord is found by weighting it down until it breaks. The tragedy is a spiritual experiment which sometimes proceeds on the same principle.

¹ "The Renaissance of the English Drama."

The Use of Tragedy. A discussion of the function of tragedy, however brief, must at least mention Aristotle's doctrine of Katharsis, that is, his remark that tragedy, through pity and fear, effects the proper purgation of these emotions. A great deal of theory has been written to show what Aristotle meant by this. One view is that the spectator of a tragedy has his feelings of pity and fear aroused by the great suffering of the hero, and in this moment of fervent, disinterested feeling for greater suffering than his own, all the impure, selfish elements of pity and fear are burned away. Tragedy, in this way, would be a means of cleansing these emotions from their undesirable elements and of teaching the spectator to reserve them for proper subjects. Another view has it that pity and fear are in themselves undesirable and that the tragedy tends to rouse them and to draw them off in a harmless way, so that the spectator of the play is purged *from* these emotions. In spite of the theories, however, the doctrine of the Katharsis is scarcely a settled problem.

We have said that the essential function of art is to present a problem or an objectified emotion. No form of art shows this more clearly than the tragedy. The desperate conflict of impulses is the very condition for strong emotion. These impulses are objectified by being represented by the persons in the play. Thus the conflicting impulses in Macbeth's mind are ambition versus conscience and social obligation, and these are represented and stimulated by the three witches and Lady Macbeth on the one hand, and by Duncan, Banquo, and all who stand for the established order, on the other.

The tragedies which we should suppose the spectator would feel most keenly are those in which he can sympathize with both sides in the struggle; for then he tends most thoroughly to identify himself with contradictory interests. Since tragedy, then, deals with action, and action of the most serious kind, let us say that the function of tragedy is to present moral situations and problems. It is not necessary that a work of art should try to solve these problems, and indeed the tragic cases are just those in which we can see no solution. The value of the drama for moral development does not rest in pointing out what one ought to do, but in warning us of certain possible situations, and also in cultivating in us the spectator's attitude. This stimulates reflection upon important questions at a time when the spectator is not personally involved in them; and moralists tell us that to sit down in "a calm hour" or to take the attitude of the "disinterested spectator" toward our own problems is the only way to an intelligent and right decision.

The Nature and Use of Comedy. The conflict of interests in comedy is not so serious and not so insoluble as in the tragic drama. Comedy usually means a play with amusing incidents and characters and a plot with a happy ending. A struggle there must be, and often a lively one. Cause and effect must also be apparent in the action, though, as is sometimes said, this is not so imperative as in the tragedy. Puffer says, in distinguishing tragedy from comedy:¹ "When two aims are absolutely irreconcilable, and when the forces tending to them are important, — that is, powerful, — there must be some-

¹ Op. cit.

where destruction, and we have tragedy. When they are reconcilable, if they are important, we have serious comedy; when not important or not envisaged as important, we have light comedy."

On the scope and nature of comedy we may quote from Meredith in "The Egoist." He says: "Comedy is a game played to throw reflections upon social life, and it deals with human nature in the drawing-room of civilized men and women, where we have no dust of the struggling outer world, no mire, no violent crashes" . . . And: "She (Comedy) it is who proposes the correcting of pretentiousness, of inflation, of dullness, and of the vestiges of rawness and grossness yet to be found among us. She is the ultimate civilizer, the polisher, a sweet cook." Also, in his "Essay on Comedy," he says that whenever men "wax out of proportion, overblown, affected, pretentious, bombastical, hypocritical, pedantic, fantastically delicate; whenever it (the comic spirit) sees them self-deceived or hoodwinked, given to run riot in idolatries, drifting into vanities, congregating in absurdities, planning shortsightedly, plotting dementedly," then the comic spirit has at them.

The enjoyment of comedy is evidently very different from the enjoyment of tragedy in spite of the fact that the two have many of their points of excellence in common. For in comedy we do not see human nature in extreme distress, but only in some vexatious tangle or ridiculous scrape. Most of us are hardhearted enough to take pleasure in the spectacle of our fellow mortals struggling with a not-too-bitter embarrassment. The fun of it is to see them put through their paces, and to know what

their mettle is. The final value of comedy is that it, too, like tragedy, discovers to us problems and situations, and this enriches our imagery of life. When we have seen these things on the stage we are able afterward to see them in the world about us (some of them, that is) and to catch the dramatic element in our daily experiences. The drama gives us the hint. Thus, if the drama is in some degree an imitation of life, life is often, also, an imitation of the drama.

Some Dramatic Conventions. A play is primarily intended, not to be read, but rather enacted before an audience by a group of persons on a stage. This kind of occasion makes certain technical demands, and calls for many conventional distortions of real life. The play is by no means a literal imitation of actual happenings. On the stage people must speak in a more finished way than in real life, often, indeed, in verse. They must carry on their reflections aloud in clear, resonant tones, to let the audience know what is being thought. They must make decisions promptly, take journeys, and fight battles with incredible rapidity and do a hundred things unnaturally because a play so demands. Take the example of writing a letter on the stage. We have heard some spectator comment that "No one could possibly write a letter in that time." But no one wants to wait while the actor does actually set down the words he pretends to write; it would make an undramatic break in the significant action, and therefore to shorten the time is a proper convention. It is like blurring an unimportant detail in a picture in order to let the important thing shine out. The technique of play-writing requires not only the

dramatic idea or action to be presented, and the literary skill to present it, but also a comprehensive knowledge of practical stage business. The play is, in a sense, a series of pictorial compositions; much of the acting takes place in a single plane so as to be clearly visible to the spectators. This means that stage setting, the business of entrances and exits, etc., are essential elements of the dramatic medium.

Among the more intellectual conventions of dramatic form we shall mention only the general law of balance and the law of complication and resolution. We may say of a play what Spencer says of conduct, — that it is to be conceived as a moving equilibrium. The two chief forces or “sides” in a dramatic conflict should claim attention with something like regular alternation. In order to realize the progress of the struggle the contributing interests must both be kept in mind. The principle of “contending sides” is as important in a play as the principle of balance and symmetry in a pictorial composition. Of course the problem of balance appears in many different forms in a play; as, balance of acts, of scenes, of characters. The dialogue is itself balanced, no one person being allowed to talk at very great length while others are on the stage. Not only must this equilibrium be kept up, but it must be a moving equilibrium, i.e., one in which the constituent forces become more and more involved (rising action) until they reach a maximal point (climax), and then become disentangled (falling action), until peace, — either of destruction or of harmony, — is regained. This law, too, is apparent in the several parts of the play. The

main plot, the sub-plot, and every act and scene has its rising and falling action, and shows itself a moving equilibrium.

Character and Action. With the Greeks the most important consideration in the drama was the structure of the plot. Action was their first thought, and characters, at most, secondary. With the Teutonic races, on the contrary, the chief interest settles rather in character or personality. This differing emphasis is consonant with the philosophic attitude of the ancient as against that of the modern world. The Greeks were interested in the objective order of things, and hence in the overt acts of their heroes rather than in their fancies and feelings and characters. The modern world places a higher value on the subjective order of things, and is accustomed to think of character and intention as the ultimately significant. Yet upon reflection we must see that in real life action and character are inseparable conceptions; they are merely the outer and inner view of precisely the same thing. The true meaning of character lies in action; that is, character may be defined as a disposition to act in certain ways. The true meaning of an action also lies in the character which performs it; that is, we do not know the meaning of the physical overt act until the intention which it expresses has been revealed. In a play we ought to find that the action is the result of having such and such characters, and also that the characters are affected by being involved in such an action. In Shakespeare's plays the characters are completely revealed in the action and they completely illuminate the action. Like the supreme artist in any

field, the dramatist should see that the spiritual meaning, in this case the characters, is completely expressed in the form, in this case the action. For we may regard overt action as the formal aspect of life, and character as its inner meaning.

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CHAPTER XVII

PROSE FORMS

"POETRY glides swiftly down the stream of a flowing and familiar river," Harrison writes,¹ "where the banks are always the helmsman's guide. Prose puts forth its lonely skiff upon a boundless sea." That is to say, the verse form or pattern in poetry is something fixed upon and maintained throughout a poem as a limit and guide. In prose there is no such definite guide, and this freedom from limits is one thing that makes it so hard to write good prose. The writer must find some limits of his own, some characteristic manner or system of choosing and arranging his words. Instead of pattern he develops prose style.

On Style. Style, as a characteristic manner, is not a purely verbal matter, but applies to the thought and words together. A man writes dramatically because he sees things and thinks things dramatically; or he writes pictorially, or reflectively, etc., because that is the style of his thought. As a general statement this is true, though there are exceptions to it.

When we advise with books on rhetoric we learn that the requisites of good writing include *economy*, *force* and *clearness*. "Let us then inquire," says Spencer, "whether economy of the recipient's attention is not the secret of effect, alike in the right choice and collocation

¹ "On English Prose."

of words, in the best arrangement of clauses in a sentence, in the proper order of its principal and subordinate propositions, in the judicious use of simile, metaphor and other figures of speech, and even in the rhythmical sequence of syllables."

Force is another excellence of style closely associated with economy. Economy of style is one of the chief sources of its strength and incisiveness; for when unnecessary parts are cleared away the salient elements are so much the more striking. Conversely, it is true that force is one of the surest means to economy; for a thing strikingly said need not be reinforced by elaboration.

According to some authorities the first and great requirement of style is clearness. What, then, is it to be clear? Logically speaking, I suppose a statement would be clear if it conveyed to the mind of the hearer exactly the same logical meaning which it had for the speaker. Now, if we wanted to prove that a certain statement were clear, we should have, according to this, to refer both to the speaker and the hearer, — perhaps asking each to paraphrase the statement and compare the results. This, however, would be a logical, not an esthetic test. A sentence which is esthetically "clear" does not require a reference to the author of it. Esthetically speaking, it is enough if a sentence conveys a definite, unambiguous meaning to the hearer. The hearer may possibly find in it something finer and more significant than the speaker had himself thought of, but for artistic purposes we would not therefore call the sentence unclear. In other words, clearness as a category of art criticism refers to the work of art itself; it has to

do with face values. We should speak of "clear" language just as we would speak of a clear linear design, or a clear melody, meaning one which was distinct and unambiguous.

Given force, economy and clearness, there is still something lacking to perfect beauty of style, and that is individual character. Style must have not merely formal excellence but personal expressiveness and characteristic quality.

Some further rules of style say that in the English language the words of Saxon origin are, on the whole, to be preferred to the Latin derivatives; also that concrete are more effective than abstract terms. But such statements are only meant to quell the extravagant use of abstract and Latin terms. There is nothing intrinsically unlovely in long Latin derivatives nor in abstract terms; many of them are delightful to the ear. There is nothing low in wishing to fill up a sentence with fine polysyllables. Indeed, the beginning of style is a love of words and phrases for their own sake. It is perfectly safe to like the big words, if you like the little words too. As for abstract terms, they are frequently more pleasing as well as more exact than the concrete. Spencer gives the following illustrations in support of the contrary view. He says that we should avoid such sentences as:

"In proportion as the manners, customs and amusements of a nation are cruel and barbarous, the regulations of their penal code will be severe,"

and in place of it we should write:

"In proportion as men delight in battles, bull-fights and combats of gladiators, will they punish by hanging, burning and the rack."

It may be questioned whether Spencer has improved this sentence by the change. The first form is perfectly clear and forceful, and, perhaps, in better taste than the second. The danger of being too abstract is no worse than the danger of being sensational and absurd.

Sensuous Beauty in Prose. Aside from the beauty of individual words, — words full of liquid and vowel sounds, — the principal sources of sensuous pleasure in prose are rhythm and assonance. The rhythms of prose are less strictly measured than those of poetry and music, but they are no less essential to good composition. The rhythms of prose, being free and individual, do not lend themselves to classification so easily as the poetic rhythms. The four examples given below show rhythms characteristic of certain acknowledged masters of style. The first two from Sir Thomas Browne:

“Every man is not a proper champion for truth nor fit to take up the gauntlet in the cause of verity: many, from the ignorance of these maxims, and an inconsiderate zeal unto truth, have too rashly charged the troops of error, and remain as trophies unto the enemies of truth.”

“Wise Egypt, prodigal of her embalmments, wrapped up her princes and great commanders in aromatical folds, and, studiously extracting from corruptible bodies their corruption, ambitiously looked forward to immortality; from which vainglory we have become acquainted with many remnants of the old world, who could discourse unto us of the great things of yore, and tell us strange tales of the, sons of Mizraim, and ancient braveries of Egypt.”

Not every man could use such rolling polysyllables, but with him they have a majestic dignity and grace. His rhythms are stately and large, with something almost

orchestral about them. In the following passage, from Pater's essay on Leonardo da Vinci, there is another rhythm, more even and quiet than Browne's, but sharing something of the same chanting quality:

"From his earliest years he designed many objects, and constructed models in relief, of which Vasari mentions some of women smiling. His father, pondering over this promise in the child, took him to the workshop of Andrea del Verrocchio, then the most famous artist in Florence. Beautiful objects lay about there — reliquaries, pyxes, silver images for the pope's chapel at Rome, strange fancy-work of the middle age, keeping odd company with fragments of antiquity, then but lately discovered. Another student Leonardo may have seen there — a boy into whose soul the level light and aerial illusions of Italian sunsets had passed, in after days famous as Perugino."

The phrases in this passage give a little the effect of ebbing away or trailing off in a series of echoes. Pater seems to abhor a climax, so he lets the qualifying words and phrases float on like an after-thought. In the first sentence of the above quotation he might have come to a stop after the word "objects," and again after "relief," or after "some" or "women." So far as structure goes, here are four places where he might have ended. Rhetorically such sentences would be called loose in structure; they have certainly the grace which comes of relaxation, and which is too often wanting in the tense, closely knit periodic sentence. To these loose sentences are due, in part at least, the atmosphere of chosen stillness and reverie which marks his style.

In contrast with Pater's rhythm stand some of the cumulative intensities of Ruskin's style; this, for example,

"It is this untraceable, unconnected, yet perpetual form — this fullness of character absorbed in the universal energy — which distinguished nature and Turner from all their imitators. To roll a volume of smoke before the wind, to indicate motion or violence by monotonous similarity of line and direction, is for the multitude; but to mark the independent passion, the tumultuous separate existence of every wreath of writhing vapor, yet swept away and overpowered by one omnipotence of storm, and thus to bid us

‘Be as a Presence or a motion — one
Among the many there — while the mists
Flying, and rainy vapors, call out shapes
And phantoms from the crags and solid earth,
As fast as a musician scatters sounds
Out of an instrument,’ —

this belongs only to nature and to him."

This passage screws us to an ever higher tension, until after the lengthened suspense of his quotation we are finally brought, more or less intact, to the climax. Other rhythms and other writers might be mentioned, but these are enough to show how important a place rhythm has in prose style.

The other chief source of sensuous pleasure in prose is assonance. It serves the same purpose here as in poetry, — to give a kind of tonal unity or harmony. A notable illustration occurs in the passage just quoted from Pater, — not assonance in the strictest definition of that term, but similarities of sound. Thus the *m*'s and *n*'s predominate in that phrase "mentions some of women smiling," and the short *i* sounds in "reliquaries, pyxes, silver images." Almost too liquid is "level light and ærial illusions of Italian sunsets."

Prose as the Medium of Thought. If poetry is pre-eminently the language of emotion, prose is certainly the medium for the exact rendering of ideas, though prose, too, if it is to be considered artistic, must be capable of expressing emotion. Scientific prose must be literal, precise and exhaustive; its object is to inform. But in literary prose we look for general impressions rather than exhaustive details. Also a freer use of figures is permitted; rich and varied comparisons, metaphors, allegories, personifications, are the legitimate means for giving emphasis to one's thought. The whole purpose of literature is different from that of science, since it aims not so much to instruct as to suggest, and not so much to give facts as to offer some valuation of facts. The two principal forms of literary prose are the novel and the essay. The former is more suited to the reproduction of concrete human situations, and the latter to the expression of abstract ideas and general reflections or impressions of life.

The Novel. The novel, like the drama, has as its chief problem the working out of plot and character. The manner in which this is done is very different. The most obvious differences of form are these. The novel is a serial narrative, only one thing being told at a time, whereas the drama often shows several incidents happening simultaneously. We can see things happening at the same time, but we cannot read them so. The drama is all in dialogue, or at least all the lines are spoken by the persons of the play, whereas the novel is compounded of description, narration, exposition, indirect discourse and dialogue. The novel makes no

such direct sensuous appeal as the play, but it claims attention for a longer time.

These differences in form react inevitably upon the content of the drama and the novel, they tend to make a difference in the kind of plot and character chosen for presentation. Some novels, of course, can be successfully dramatized, but many of the best cannot. In some of these the characters are shown as gradually developing through a period of years, and the process of growth is not a dramatic one. In other novels the action may occupy a relatively short time, but is in its nature essentially undramatic. Jane Austen's novels are of this type, so are Henry James's. Even the rapid and overt actions of many novels of adventure are not for the stage. As for the characters, there are many in real life who do not reveal themselves in stageable actions, but whose thoughts, "hardly to be packed into a narrow act," are the most characteristic things about them. This type is available only for the novel. The novel, then, with its serial form and rather reflective content, may be said to spread life out so that we may take it slowly and comprehensively; whereas the drama condenses it so that we may take it quickly and incisively. The drama is strong in the sensuous impact of its action; the novel, in that its action is accompanied and filled in with reflection and analysis. The drama is more vivid and the novel more exact.

The sources of effect are so widely varied in the novel that they are used to determine different types, as the novel of character, of manners, of social problems, the novel of adventure, or of philosophy, the historical and the descriptive novel, etc. Symons has indeed questioned

whether its very fullness of matter may not render the novel incapable of perfect artistic form.¹ "Human life and human manners are too various, too moving, to be brought into the fixity of a quite formal order."

The novel, we said, is exact. It has even been used, as with Zola, as the vehicle for scientifically exact observations, but such practice is extreme, and distorts the novel from the uses of art. As a criticism of such a conception of the novel, we may quote Symons's comment on Zola:²

"The art of Zola is based on certain theories, on a view of humanity which he has adopted as his formula. As a deduction from his formula, he takes many things in human nature for granted, he is content to observe at second-hand; and it is only when he comes to the filling-up of his outlines, the *mise-en-scène*, that his observation becomes personal, minute and persistent. He has thus succeeded in being at once unreal where reality is most essential, and tediously real where a point-by-point reality is sometimes unimportant."

The novel, with Balzac, is commonly the history of a dominant passion; in "The Quest of the Absolute" it is the passion of research, in Catharine de Medici, the love of power, in Goriot, paternal love, in Grandet, avarice, etc., etc. This ruling emotion is expressed and recorded in the action of the novel. Thus Balzac's works, more, perhaps, than those of any other novelist, fulfil that formula of art which calls it an objectification of emotion.

The Essay. The essay is a discourse which centers upon some particular topic, often abstract in its nature.

¹ "Studies in Prose and Verse."

² Id.

Its advantage lies in its directness and simplicity; the writer need not be at pains to hunt up characters, or invent situations and plots and all the paraphernalia of a fictitious setting, but he may speak out in his own character and tell us plainly what he is thinking. On the other hand, this very directness may sometimes be a disadvantage; for, in eliminating characters, narrative and description, the essay seems to be leaving art with all its wings clipped. Now the philosophical essay is probably the least sensuous of any literary product; hence we may assume that, if it can show elements of artistic form, the essay in general is vindicated.

Not only is beauty of rhythm and assonance possible in the philosophical essay, but the systematic development of the thought itself may follow artistic conventions. There must be introductions, complications, expositions, elaborations, climaxes and conclusions; part balanced against part and point against point. Thought itself does not occur to us in a formless wad; it always has some hint of plot, and it often proceeds as in a dialogue. Thought, however abstruse, is never absolutely wanting in form, and hence never is wholly outside the pale of artistic arrangement.

One may naturally ask whether a philosophical essay is any more fit to be a work of art than a scientific essay is. I think we should be justified in answering yes. Philosophy deals with general conceptions of life rather than with specific facts; its effect is suggestive and stimulative rather than literally instructive. Its truth must often be grasped sympathetically rather than by proof. It sets problems rather than solves them. Its subject-

matter seems, therefore, more congenial to literary treatment than the subject-matter of science; and the fact that philosophy is sometimes tedious reading is the fault of philosophers, not of philosophy.

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CHAPTER XVIII

THE GENERAL CONCEPTION OF BEAUTY AND ART

THE esthetic experience, as we have seen, appears under a great variety of objective conditions. Every distinct branch of art presents important differences of objective condition, and, indeed, every individual work of art gives a unique modification to the esthetic experience. And yet it is possible to find some points of agreement in all these types of experience, some items of similarity in all these so dissimilar beautiful objects. An apprehension of these items constitutes our general conception of beauty. Before commenting on this general conception we must, however, speak of two kinds of experience which are properly to be considered esthetic, but whose objects have not always been included under the strict definition of beauty. These are the sublime and the comic. There are elements in the comic, and in the sublime also, which do not well agree with the formal and classical conception of beauty, but, since they are admitted by other views on beauty, it is in place to give here some brief account of their nature.

The Nature of the Sublime. Burke, in his treatise on the Sublime and the Beautiful, makes this distinction,—that the enjoyment of beauty is founded on our enjoyment of things which give pleasure, whereas the enjoyment of sublimity is founded on the enjoyment of things which

inspire fear and awe, things which remind us of pain and danger. Kant also opposed the sublime and the beautiful, finding that the sublime makes its appeal less on the formal, sensuous, objective side than on the subjective and intellectual side. It is very generally agreed that the objective condition of the sublime includes magnitude, whether this refer to vastness of spatial extent, or to time duration, or to greatness of physical or moral power. Certain spectacles in nature, as well as some architectural products, give this impression of overwhelming size, power and duration. We get a similar impression of moral power from some tragedy. The observer's reaction is sometimes described as one of fear and admiration, sometimes as one of heightened sense of power as the observer feels himself rising to sympathetic appreciation of the sublime object. These two moments, though strongly contrasted, are not incompatible. It seems, in truth, as if the first thrill of fear were a necessary condition for the later feeling of elation as one identifies oneself with the object. Modern writers tend to include these elements of vastness, grandeur and power under the conception of beauty. Power or strength is an important part of the characteristic, which for modern theory is much if not all of beauty.

The Nature of the Comic. Some writers are of the opinion that experiences of the comic cannot be reduced to any one descriptive or explanatory formula. Those, however, who believe that this can be done, have emphasized, some one, some another, of the following points. Subjectively the experience is usually found to be a pleasurable one accompanied by smiling or laughing.

There is a transition from one thing to some contrasted thing, involving, perhaps, a "descending incongruity," and accompanied by some sense of relief. Kant said, "Laughter is an affection arising from a sudden transformation of a strained expectation into nothing." There must be something new or sudden in the perception, and, according to some, there must be a feeling of superiority or "sudden glory" on the part of the observer. In the case of humor, as distinct from wit, the observer's feeling is tempered by an underlying sympathy with the comic object. Objectively the comic presents some contrast or incongruity.

Martin has made an important experimental research on the comic. She used as material a series of comic pictures. These were observed under controlled conditions, the subjects ranking each picture on its amusing character, and recording their introspections. She found a rather general tendency toward imitative movements, which enhanced the appreciation of the pictures. A smiling face in a picture often made the subjects smile or laugh and then judge the picture as "funny." Thus, in James's phrase, they were pleased because they laughed. Other important elements in the comic experience were found to be novelty, pleasure, contrast, sometimes associations, and sometimes a feeling of superiority. The experimenter finally offered to sixty subjects a statement of the principal theories of the comic, and asked them to examine a given picture and to name the theory which seemed best to explain their experience of the picture. Schopenhauer's theory was named oftenest (fifteen times). Two subjects then worked through

sixteen pictures, comparing their experiences with the theories. Schopenhauer's was the only theory found applicable by both subjects to all the pictures. His theory reads:¹ "The source of the ludicrous is always the paradoxical, and therefore the unexpected, subsumption of an object under a conception which in other respects is different from it, and accordingly, the phenomenon of laughter always signifies the sudden apprehension of an incongruity between such a conception and the real object thought under it, thus between the abstract and the concrete object of perception."

The range of the comic is not, of course, limited to one field of esthetic effect; we find it in the dance, in music, in the visual arts, and in literature, especially in the drama. One of the chief sources of comic effect, namely, the sudden or naïve revelation of human character, is at its best in the drama.

The Classical Conception of Beauty. Beauty may be said to depend upon symmetry, balance, rhythm, regularity, proportion, or, in brief, the manifestation of some unity or law in the midst of variety. This is the classical conception. It lays stress on the formal or objective aspect of beauty, and tends to emphasize the importance of the general nature of the art-medium and its limits rather than the feeling to be expressed. Something permanently perfect is its aim. In esthetics the term classical is used as a descriptive term, and does not mean that the object so named is better or worse than others. The conception is best understood by naming some of the concrete works which exemplify it. In

¹ "The World as Will and Idea."

architecture the Greek temple is classic, not because the Greeks built it, but because it shows regularity, complete finish in details, perfect balance and unity. In music the work of Mozart is classic with its regard for purity of harmony and precision of form. In the dance it is the gymnastic element which is more allied to the classic spirit. In the drama the classic emphasis is on plot rather than on character. In English poetry Dryden and Pope, and, in English prose, Addison, are examples of classical spirit. The best works of art of the classical sort have what McColl would designate as the "Olympian" quality; they express repose, perfection, and, above all, the reign of law.

The Romantic Conception. The romantic idea of beauty emphasizes the subjective and emotional side of it. The chief excellence of a work of art, on this theory, is its expressiveness, and the idea is that the artist should be allowed absolute freedom from tradition in order that his personal feeling, not tradition, may govern the form of his work. The artist of this faith aims, not at the perfect, but at the interesting. Among works of art showing the romantic disposition are Wagner's operas, the paintings of Delacroix and of many landscape artists, the poetry of Byron, the prose of Victor Hugo. The "romantic movement" was a reaction against modern classicism, and began in the eighteenth century, but the romantic tendency in art is not confined to this period. It is never, indeed, wholly absent from any period of artistic production, though sometimes greatly overshadowed. Pater has shown, for example, that there was a strain of the romantic in the Greek temperament

and in Greek art, though we are accustomed to think of the classical as predominating. In connection with the romantic movement there appeared the doctrine of the "characteristic," though this conception of art is not identical with the romantic view.

The Realistic Conception. Realism in art is the attempt to portray things as they "really" are. It is opposed to the extravagant and overdrawn products which romanticism sometimes shows. It is also more objective and impersonal than romantic art. But the "real" often turns out to mean the literal, even pedantic, transcription of minute items of experience, and in this devotion to particulars rather than to universals it shades around toward romanticism. In choosing to portray certain narrowly limited aspects of life, the realists have been in danger of as great extravagance as the most wilful romancer. Realism as a criterion of art or a conception of beauty is wholly inadequate; it merely means the imitative element in art pushed to the extreme.

The Conception of Character and the Characteristic. Character, we think of, as that which marks off a person (or an object) as different from others. It is that which distinguishes. But at the same time it is something which is regularly present in that person or thing, and hence is a typical or common element in our experience of that person or thing. Character as a distinguishing mark is a guarantee of individuality or of variation from the ordinary. In popular use a "character" is an eccentric person. On the other hand, character indicates that which is constant, typical or representative. We say that one has a hasty or a deliberative character,

meaning that under given circumstances he habitually responds in certain ways. To say without specification that a person has "character" is to say that certain of his habits have fixity or strength, that he can be relied upon. Character has thus two aspects: from the point of view of a social group it is individual and a variation, but from the point of view of the individual it is generic or a constant. Similarly we might speak of the character of a nation, and this would be something individual if we compared it with the peculiarities of other nations, but something generic if we thought of a great many different persons of that nation as exemplifying it.

The characteristic is that which pertains to the essential nature of a thing and reveals its character. The "characteristic" was first proposed as a necessary principle of art by Goethe in an early essay in defense of Gothic architecture. "Gothic" in that day was the synonym of barbarous, disorderly, overloaded, tasteless, because it was unlike the classic building of the ancients. But Goethe, impressed as he was by a visit to Strasburg cathedral, sought to justify his emotion on the theoretical side by enlarging his conception of beauty. Goethe teaches that beauty is to be gained by a combination of the elements of formal regularity with the element of characterization. The characteristic alone, Goethe thought, might be ugly, but when united with decorative grace it became the highest beauty.

The characteristic is really wide enough, however, to include both classical and romantic tendencies. There can be no character without harmony, regularity or subjection to law, just as there can be no character

without freedom and individuality. The work of art must embody both these tendencies (though it may do so with varying emphases), but the conception of the characteristic is also wide enough to express both these tendencies. As for concrete works we may say that both the Greek temple and the Gothic cathedral are characteristic, both Mozart and Wagner, both Pope and Byron.

Selection and Limitation. The process which makes a work of art characteristic is the process of selection and its consequent, rejection. In melody we saw that the tones, however pleasing in themselves, which obscured the outlines of the tune, were out of place, and in painting we saw that the details of a picture, however pretty or accurate, which drew attention away from the main idea, were wrong. To choose, and then stand by one's choice, is the necessary thing. Ruskin calls it the law of sacrifice, and it means real sacrifice because the artist has to reject, not merely the ugly or indifferent, but the attractive and pleasant which happens to be irrelevant to what he has chosen. "Definite limitation" was named by Aristotle as one of the conditions of beauty, along with order and symmetry. In this conception of the limited or finite the Greeks touched one of the phases of what we call the "distinct" or characteristic. (The term "infinite" was a term of disparagement with the Greeks; it meant to them something vague or "indefinite," rather than "infinite" in the modern sense. Hence to call a thing finite or limited would be a term of praise.) The artistic reward for selecting and limiting one's material is the added clearness, strength and perfection which can be gained within the limits set. Decorative art if it

surrenders the third dimension, gains in clearness of design, boldness of contrasts, freedom in the use of color. Sculpture surrenders color and gains in the emphasis on pure form. Music limits the tones in its scale and gains in clearness of structure. Each art, indeed, is founded on a set of limits by the very fact that it has a special medium. Good artistic work demands the recognition and perfect acceptance of those limits.

Life as a Work of Art. "The art of living is the supreme art," writes Mabie, "because it presents the widest range of material, and the most varied, delicate and enduring forms of activity." It behooves us to inquire whether there is more than a general analogy between life and the work of art, whether the same laws hold of both, and also whether one is justified in saying that the range and variety of life is greater than that of art.

Beginning with the last question, I should answer in the negative. The person who is arranging his life as a work of art does so in the light of the experience which he has drawn from many sources. But the person who works in marble, or pigment or musical tone is also putting the result of his experience into his work of art, and there is no reason why he should not have as wide a range to draw from as the other. They may both have the same range of opportunity, the same experience of life, but they express themselves in different ways. This brings up the question of the medium of life as a work of art.

Every art that we have studied has a certain advantage over the art of life, namely, that each of the arts,—of sculpture, music, etc.,—has a clearly defined medium. It

has fixed limits or definite data which any one immediately recognizes, and which act as inflexible guides to the artist himself. If, now, we are going to take life seriously as a work of art, we must discover the set of conditions which can be regarded as its peculiar medium. The artist finds himself living in a certain environment. He has certain physical and mental endowments, and he finds that he has grown up into certain social obligations and limits. Now the modern social organization tends, as we know, to the differentiation of activities, and the specialization of types or persons, and the person who chooses an occupation, therefore, finds himself involved in a still more special environment. This person, then, who has consciously limited his activity to a certain field, as by the choice of a vocation, has taken the first step toward making his career into a work of art; for by so doing he has accepted a definite medium through which he may express what is in him. Given, then, the vocation or type of activity as the medium, and the person who has chosen it as the artist, in what way can he objectify and express himself in his career?

If he is of the temperament to follow the classical ideal, he will attempt to put into his life order, proportion, symmetry, balance, perfection of detail. He will be prudent, deliberative, reasonable. If, on the other hand, he conceives life romantically, he will wish to render it expressive, and will therefore be more likely to trust to instinct and enthusiasm, more likely to take risks, and to fail or to succeed signally. The aim of those who live tastefully will be always to achieve something characteristic. They will not live too much in detail, like the

realists, but broadly and suggestively. They will be typical in following to some extent the traditions of their class or profession, but individual and personal in recognizing and responding to special situations.

Among concrete instances of characteristic persons we may take Martin Luther and Cardinal Newman. Each was religious, each sincere, each was a characteristic personality working out a significant career. Each shows a temperament which acts as a unifying principle amid the striking contrasts of his career. Each was artistic because he found and accepted the situation which emphasized his type and expressed his temperament. To perceive one's type and to work it out consistently is the whole formula. Too many persons accept their ideals from others, or else choose items of excellence from too many different sources. In the one case a purely imitative character is likely to be developed, and, in the other, a kind of rococo personality which attempts to combine the excellences of incompatible types. Confusions of type are as undesirable in life as they are in art. No one would wish to see gargoyles crawling over a Greek temple, and for the same reason no one could wish to learn that George Washington, for example, tried to tell anecdotes in the manner of Lincoln. It would be equally disturbing to hear that Lincoln excelled in stepping the minuet. One would not want Jane Austen to take up the sword, nor Joan of Arc to write a novel of manners. Each of them is entirely perfect, but their mixture would be grotesque. To lose such distinctions, and to confuse or blend such types, is to take the meaning out of life.

Art and Conduct. In the last paragraph it was said that life could be looked upon and treated as a work of art, that the conceptions of art apply to life. To the artist, indeed, his art is his life, and the categories and points of view which art develops are those with which he habitually looks on all phases of experience. But it is also true that in our discussion of the special arts we kept explaining their values in terms of life. We referred constantly to the processes of our own organism, i.e., to organic and muscular rhythms and to imitative activities as the ground of the meaning of the work of art. We seemed to regard our own selves and bodies as the terms of final reference. In the drama it seems particularly clear that art is judged by the categories of life and conduct. It is no less true that every art shows a special organization of life, and is to be judged in terms of life. Art and life, therefore, may each serve as a standpoint from which to criticize the other.

In trying to define a little better the likeness and the difference between art and life, one is struck first by the similarity of their ideals. The ideals of life I assume to be the same thing as the ethical ideals or the ideals of conduct. Now ethical theories fall quite generally into two types — the perfectionist and the hedonist. One emphasizes the striving for perfection of character, a character which shall show the virtues in complete adjustment to one another, and which represents order, proportion, balance, and, above all, amenability to law. The other type of theory emphasizes the importance of personal feeling; pleasure and satisfaction are its aim. The perfectionist pays most regard to the form of the activity,

the hedonist to the content of it, that is, to what the activity signifies or brings with it. I think the analogy of these types of ethical theory with the classical and romantic conceptions of beauty respectively is a close one. In esthetic theory, again, we find the notion of the characteristic, and, as the analogue of this in ethical theory, we have the notion of self-realization. Self-realization means the working out of a self which is strong and distinctive, one which is obedient to laws, but laws of its own being. This theory recognizes the values of both perfectionist and hedonist, just as the characteristic recognizes the values of both the classical and romantic types of beauty. So far as ideals alone are concerned, I fail to see any difference between the ultimate ideals of art and the ultimate ideals of conduct.

What is it, then, that makes the difference between art and life, and how shall we place them in reference to each other? Let us begin to answer this question by turning back to the philosophy of Kant.

The most vital problems of modern thought were focused and defined by Kant in his three Critiques. He had, as his general problem, to try to reconcile the claims of the doctrine of free-will with the doctrine of natural law. In the "Critique of Pure Reason" he concludes that we cannot think of anything in the universe except as being under the dominion of natural law. This is the only form in which anything can reach the understanding. Nature or necessity holds good absolutely, and to the cognitive faculties there is no proof of any freedom or spontaneity in the world. Conduct, therefore, seems to be determined by natural law. In the

"Critique of Practical Reason" he dwells upon the need for believing in freedom. In order to live rationally and sanely, he concludes, we must make some assumptions which we cannot prove, and among these things in which we have an unproved faith are the existence of God, freedom and immortality. We act *as if* we could prove their validity. Practically we feel and conclude that the human spirit, not merely necessity, rules human conduct. To reconcile this anthesis of nature and freedom Kant drew upon the esthetic experience. In esthetic judgment we perceive the rational in the sensuous, that is, sense-impressions as determined by natural law are completely reconciled with reason or the spiritual law. Beauty is both sensuous and rational. Subsequent theories varied from Kant in other ways, but they all seem to agree that art "does something" for life in the way of ameliorating its contradictions. This is expressed in different ways, as the manifestation of idea to sense, or the absorption of subject in object, or the harmonizing of life tendencies. These phrases are not equivalents at all, but they each indicate the alleviating character of art.

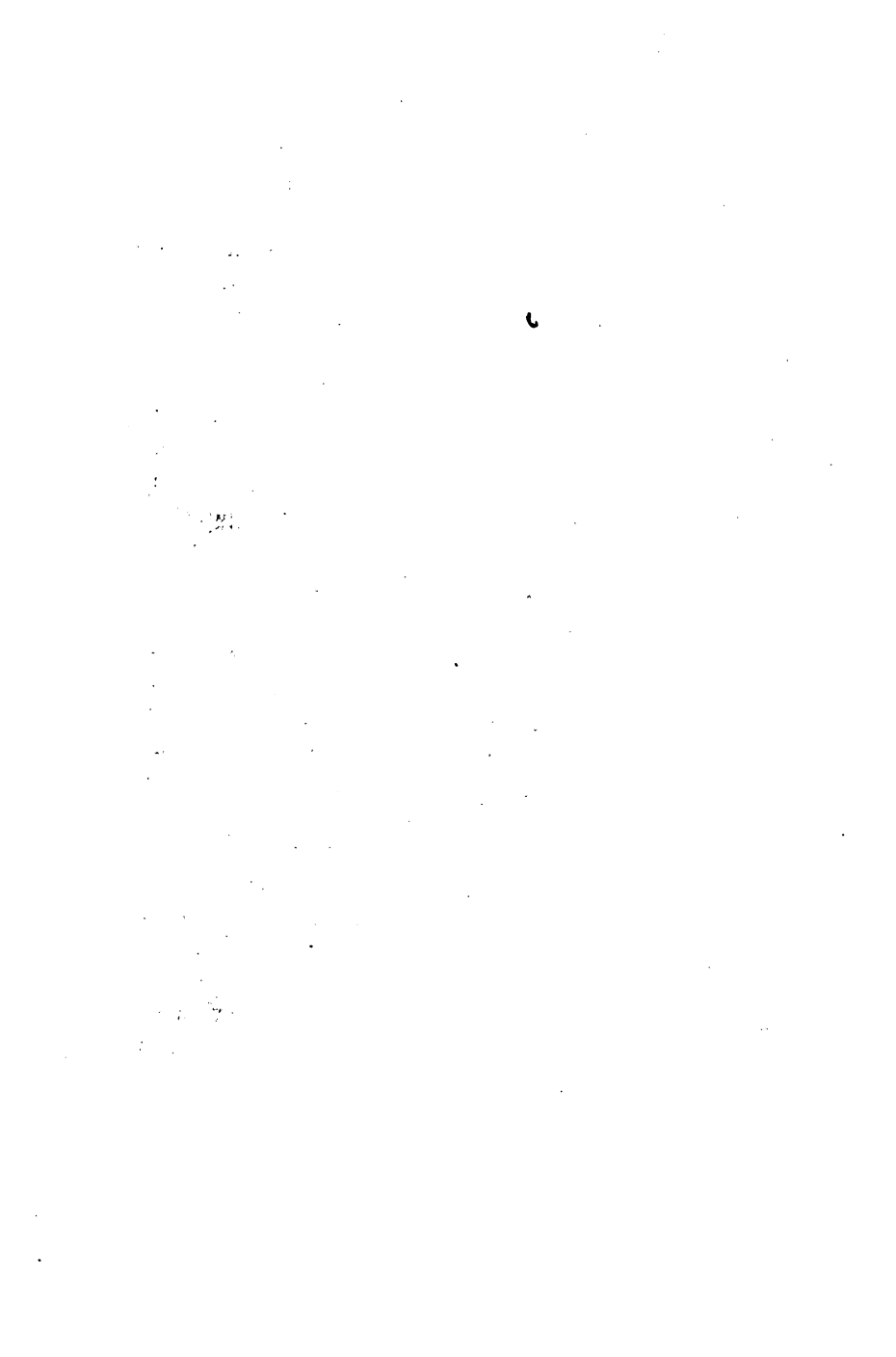
Now there is, perhaps, no happier way of expressing what art does for life than to say, in the phrase of Henry James, that art is "the image of life."

"The Image of Life." The relationship of art to life would really be, according to this notion, the relationship of image to experience. Art, we should all admit, gets its meaning from life, and life finds in art the sensuous forms or imagery of its meanings and ideals. This idea would harmonize perfectly with the idea of beauty as a

reconciliation; for we know from psychology that the instrument for the readjustment of contradictory tendencies is the image.

Keeping to the problem of conduct as the central problem of life, let us ask by what imagery some of it is carried on. To the Greeks the problem of conduct was one of balance. Every virtue, Aristotle conceived, is a mean between two extremes. Justice, which is probably the most comprehensive of the virtues, comes back very strikingly, I think, to the imagery of symmetry and balance. Moral regularity we often think of under the guise of some sensuously thinkable order or regularity. The problem of practical morality is the problem of seeing virtue under an attractive image. We can, of course, prove the social necessity of virtue, and can grasp ethical values as reasoned conclusions, but I do not think we can act virtuously until we see some beauty in it. This is not saying that we are an immoral lot, but only that beauty is an essential aspect of the ethical ideal. It is that which is immediately felt and which gives the stimulative power to the ideal.

The relationship of art to life we may finally express in terms of imagination and experience. The material of imagination comes from experience, that is, the image in its reproductive phase copies experience. But the constructive image is no longer a copy, but a creation, and then it is experience which follows or copies from imagination. So it is with art and life; each takes its turn as leader of the other, and life could no more spare art in the wide sense of that term than art could spare life.



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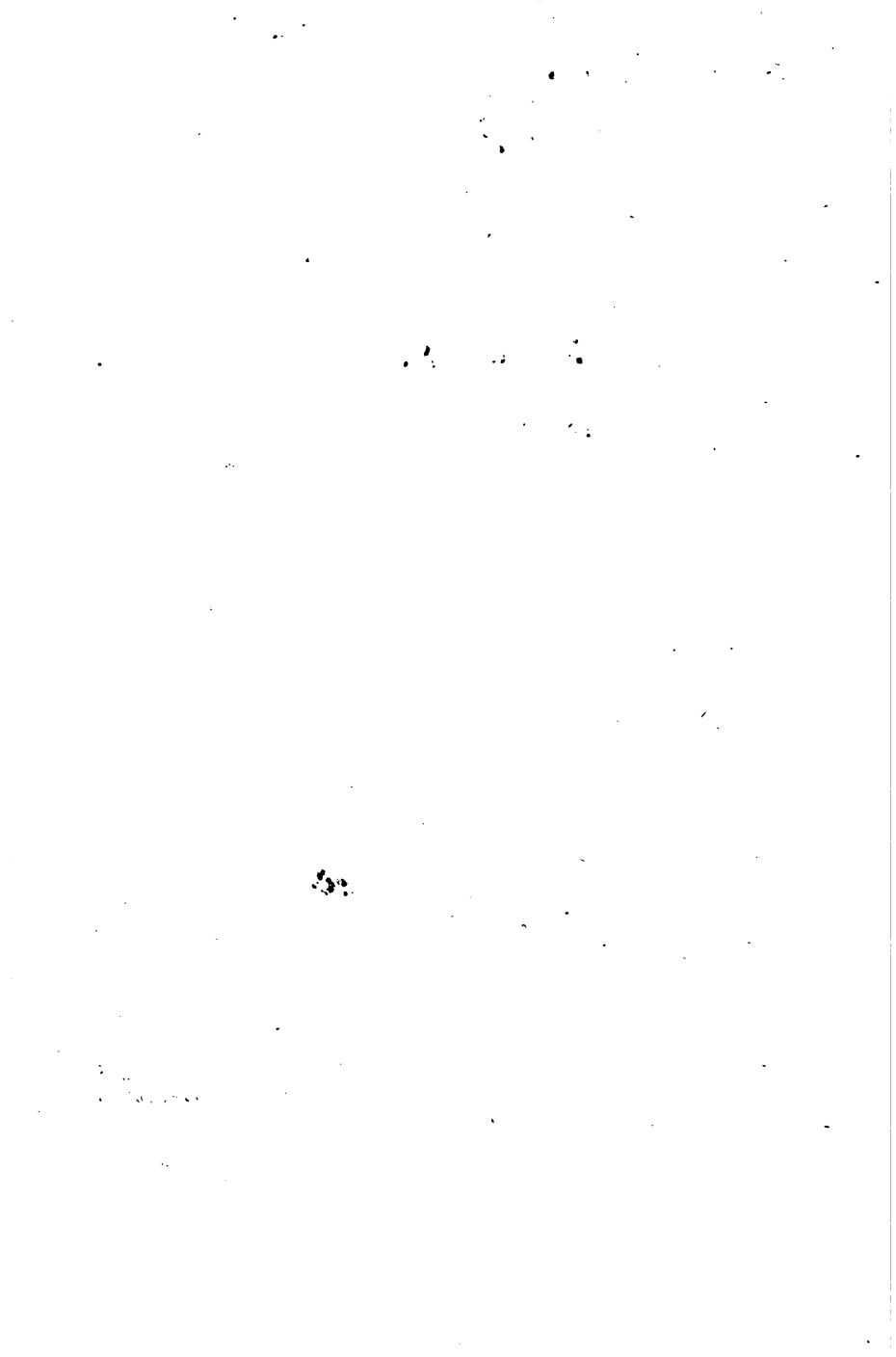
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